Chapter 5

The French State and the Transfer of Technology.

5.1 Introduction.

The theme of this chapter is the State and its response to the demands of the transfer of English technology. The general issues reflect the changes that were taking place on an international level when diplomacy between France and England was problematic. Perceptions of the English underpinned French attitudes. French state intervention, however, was adaptive and versatile if not always successful. French consumer patterns were changing at the same time. Specific issues embraced the Government's attempts to manage trade relations, the problem of smuggling and the domination of French markets by English goods.

The American war with England had effects on the transfer of English pottery technology. The Treaty of Versailles that terminated hostilities between France and England contained certain English provisos. These stipulated a future commercial treaty between France and England. If the French did not comply within a certain time limit, England made it clear that punitive action would be taken.[1]

This thesis bridges the transfer of technology in both the Ancien Régime and after 1789. This research is not looking at the whole impact of the Revolution with all the attendant social and economic issues. The specific issue treated in this thesis deals with how the French State treated French manufacturers.

5.2 Treaty of Commerce.

On 17 July 1785 Calonne, Conseiller ordinaire au Conseil royal, Contrôleur général des Finances, drafted a report to the King's Council at Versailles to accompany an 'arrêt du Roy' which dealt with the issue of 'anglomanie' and smuggling.[2] This Arrêt du Conseil d'Etat du Roi Concernant les Marchandises étrangères prohibées dans le Royaume addressed a long-standing issue which was reaching a critical phase in 1785.[3] There had been complaints from merchants and manufacturers throughout the kingdom about the large amount of foreign produce that was openly available 'et surtout de celle de fabriques Angloises'.[4] This was particularly true of English goods:

> auquelles la mode et la fantaisie font donner une préférence décourageante pour l'industrie nationale.[5]

Calonne commented that French consumer taste showed a preference for English goods. This amounted to a fashion whim that was discouraging for the French manufacturer. It was 'd'autant plus intolérable que les marchandises Françoises sont exclues de l'Angleterre'.[6] That French goods should be denied entry to England made the ubiquitous presence of English manufactured goods in France all the more difficult to accept.[7]

English goods should not have been in France as they were subject to the most rigorous bans or high tariffs which the English, according to Calonne, avoided paying.[8] French consumers were attracted by 'the newest items on the market' and were persuaded by 'la liberté de satisfaire leur gôut' in buying English goods which 'were better produced than French items'.[9]

There were nine Articles in this 'arrêt' of 17 July 1785. The ordonnances and regulations which had banned certain foreign items since 1687 remained in force.

English goods were singled out for particular attention.[10] They were to be banned at every port of entry. Any unauthorised merchandise found was to be confiscated and a fine of 10 000 livres imposed.[11] Private individuals could import banned goods but only with the permission of the Controller General of Finance and with a thirty per cent ad valorem duty on the items.[12] The goods were to be docketed and sealed then sent on to the recipient.[13]

Calonne pointed out that by the prescription of the 'arrêt' of 6 September 1701 no merchant or dealer should be allowed to handle banned goods.[14] This included any intention to sell, to advertise, to deal in wholesale or retail, or to merchandise any prohibited goods.[15] This 'arrêt' was being put into force again in 1785.[16] As English merchandise was prohibited, any shopkeeper with the sign 'Magasin de Marchandises d'Angleterre' above his door would be given a week to remove the sign.[17] After this period of grace had elapsed the merchant then incurred a fine of 3000 livres tournois and lost his privileges as a merchant.[18]

The next articles in this 'arrêt' that Calonne analysed dealt with the seizure of prohibited goods by the officers of the Ferme générale on behalf of the King's Treasury.[19] The Lieutenant General of Police was also involved as were the 'intendants' and 'commissaires' in the provinces.[20] In Calonne's report he recounted how the confiscated goods were collected and deposited in a government department in Paris which had been created specifically to deal with them.[21] This Bureau général du Prohibé received the banned goods that had been seized under seal.[22] Later the merchandise would be assessed and valued. Half of what the goods were worth was allocated to the government department whose officer had made the seizure.[23] This entire procedure would later be referred to by aggrieved French manufacturers.[24]

The English goods were then exported abroad as 'Marchandises blanches' from the port of Lorient.[25] Calonne also pointed out that the other free ports in France then handled what remained of the confiscated goods and exported them so that none found their way back into France.[26] Calonne indicated that his finance departments and those of the Ferme générale were making attempts to deal with the problem of smuggled English goods that were everywhere in evidence.[27]

The report by Calonne referred in general to the presence of English smuggled goods in France in the 1780s. The report by Du Pont de Nemours written around 1782 gives a different perspective to the issue of smuggling as it affected pottery production.[28] At this time the French Government was analysing its domestic markets. Du Pont was director of a new department created by Vergennes, the Bureau for the collection and keeping of foreign commercial laws.[29] He was studying market statistics with Boyetet, one of the heads of the Bureau of Balance of Commerce.[30] Du Pont and his colleague, Graviers de Vergennes, the nephew of the General Controller, were analysing French consumer patterns.

Their findings indicated that French goods came in a poor second to the consistent quality, cheapness and availability of the smuggled English imports.[31] His report to Vergennes stressed the presence of smuggled English pottery in France in the 1780s.[32] Du Pont admitted that English goods were more popular than French products and that the French shops remained full of English pottery despite the prohibitions.[33] He verified that there was a high consumption of English pottery in France.[34] He even added a margin comment that 'l'Angleterre a pour le moment un grand avantage relativement aux Poteries'.[35] From this statement it is clear that the French Government had a very good idea of how vulnerable the French

pottery manufacturer was in the face of English competition. It was aware that there were problems for potters. It was, however optimistic for the future:

> Ce n'est pas que nous ne puissions dans la suite imiter et peut-être surpasser les Poteries Anglaises mais ce qui ne peut pas être longtemps exclusif.[36]

Du Pont expressed confidence in the skills and intelligence of the French potter to compete adequately with imitation English wares but probably only on a short-term basis. Ability was not the problem as he saw it. Coal was the biggest stumbling block for the French, in particular its cheapness:

> Le seul avantage réel des Anglois pour cette fabrique est dans le prix modéré du charbon de terre.[37]

This reduced English production costs and was a major advantage. The French Government admitted the importance of coal and coal-fired technology and was about to help the French potter by drawing up a register of the mineral assets of France. This was under the aegis of Calonne, the Controller General of Finance but would take some time to effect. With better resources and information available to him, the French potter should be able to make pottery good enough to compete with the English imports.

There then followed an assessment of the market situation in France with regard to smuggled goods and their quality:

> Mais cela n'empêche pas qu'en attendant, la poterie Anglaise ne soit très préférable à la nôtre, aussi s'en fait-il en France une grande consommation et nos Magasins en sont pleins malgré la Prohibition.[38]

Here is hard evidence from an influential bureaucrat like Dupont Du Nemours that the French consumer bought a great deal of English pottery. French shops were full of it despite the fact that it was a prohibited import. The quality and price of the smuggled goods made them preferable to the French product. Calonne made the same comments some three years later in his report on smuggled English goods which were still an ongoing problem.[39]

From 1782 onwards Du Pont had been working with Vergennes on the initial drafts of a commercial treaty with the English.[40] This had been forced on the French by the inclusion of Article 18 in the Treaty of Versailles in 1783.[41] It had been signed by England and France after the cessation of hostilities in the American War of Independence.[42] The English had insisted that the ban on English manufactured goods be lifted.[43] This had particular relevance for English pottery. If the ban was not lifted, they had indicated that there could be political as well as commercial repercussions.[44] The Treasury, the Foreign Office, the Customs Department as well as the Department of Trade in France were examining markets carefully before any concessions or conciliatory measures were considered.

Du Pont knew what concessions the English were demanding in this trade treaty. He commented that the French could not keep English pottery out of France: 'En attendant on ne peut refuser l'entrée à la Poterie anglaise'.[45] Later in the document Du Pont repeats the same argument:

> Nous ne pouvons pas refuser l'entrée à l'Angleterre qui la demande comme une stipulation de presse; or nous ne refuserions ouvrir, puisqu'elle a des moyens de faire passer les Poteries jusque dans la Capitale, malgré notre refus.[46]

Once more this is hard evidence that English pottery was an issue. This is a clear admission on the part of a ministerial adviser that the French Government was unable to keep English smuggled goods out of France or even Paris. The Government felt coerced into giving the English what they wanted, namely free access into French ports for English pottery and other banned manufactured goods. In return, the French manufacturer would be helped 'by the suppression of all the duties and tariffs that the English had imposed on French pottery and faïence'. What the Government wanted was reciprocity for French ceramic products in England.

Du Pont admitted that the advantage would be with the porcelain manufacturers whose exports to England would increase. There had always been a market for French porcelain in England as in other European countries. High English import duties had restricted this trade. Du Pont believed that porcelain would be the biggest ceramic export to England. This would happen when the English in their turn reduced the import tariffs on French products. In effect, the French Government was sacrificing the French earthenware manufacturer to open and legal competition from his English rivals. The question of government protection was covered in the rejoinder that time and better resources was all the manufacturer in France needed. How French potters and merchants reacted to the proposals of the Treaty of Commerce of 1786 was yet to be seen.

On 4 January 1782 Du Pont de Nemours had reported to Vergennes about the implications of a trade treaty with England.[47] He stated that the French Treasury stood to gain around four million livres tournois in customs duties per year if France abandoned its policy of prohibition towards English manufactured goods.[48]

He advised Vergennes to insist on the reciprocal removal of English prohibitions on French goods.[49]

On 25 November 1782 Du Pont reported that French ports remained closed to English goods.[50] This was despite Vergennes' request to the Ferme générale to ease the restrictions by way of a conciliatory gesture to the English.[51] In a later document Du Pont then discussed the stipulations of Article 18 of the Treaty of Versailles signed on 3 September 1783.[52] This guaranteed peace between France and England:

> provided that France and England name commissioners immediately after the exchange of ratifications to treat concerning new commercial arrangements.[53]

Du Pont argued that France would receive great economic benefit from the trade treaty, a breathing space after the enormous costs that they had both incurred during the American War of Independence.[54] Du Pont claimed that prohibitions had encouraged smuggling on a scale that was becoming untenable for the commercial well-being of France.[55] To suppress or control it would be a costly business with recourse to police methods.[56]

At this juncture it is worth mentioning that the views of Holker (père), were considered with respect by Du Pont.[57] In a letter written in November 1782 Du Pont reported : 'Mr. Holker's letter shows quite clearly that we will be able to sustain English competition if we remove the prohibitions on English goods'.[58] The scene was set for a debate on the Treaty of Commerce between England and France which was signed in 1786 but came into effect in May 1787 and lasted until January 1793.[59]

Smuggling had been an issue for decades and Dallery, an Inspector General for Foreign Manufactures in France before Jean Holker (père), had tried to control the problem along the Normandy coast since the 1750s.[60] After 1783 there had apparently been widespread dissatisfaction about the possibility of a treaty of trade with England. This was especially true of the northern coast of France that had to deal with the initial onslaught of English goods. One of the most cogent criticisms of the proposed treaty came from the 'Observations préliminaires de la chambre de commerce de Normandie sur le traité entre la France et l'Angleterre', drafted in 1788.[61]

The actual 'Observations' were probably compiled at the instigation of the Inspector General of Manufactures, Boyetet, who was not satisfied with the way in which the Government had undervalued the views of the merchants and manufacturers within France.[62] Two businessmen who were members of the Rouen Chamber of Commerce, Rabasse and Hurard (fils), had been sent to England in 1787 on a fact-finding mission and had reported back to the Normandy Chamber.[63] Their findings corresponded closely to another professional's view of the situation. These were the comments of the Inspector of Manufactures, Simon Clicquot de Blervache, who in the following year published his views on the treaty in a work entitled, 'Considérations sur le Traité de commerce entre la France et la Grande-Bretagne, du septembre 1786'.[64]

These informed critics of the Treaty stated that coal was a major issue particularly in the case of pottery.[65] Coal in England was much cheaper than in France and this had made the production of English pottery cheaper.[66] English pottery produced in French factories remained dearer than English imports.[67] Potters

everywhere in France complained about the treaty which made the English pay only 12% ad valorem duty on earthenware such as Queensware.[68]

There were claims by the French that the English were making fraudulent declarations of value on their shipping invoices and that they were really only paying 6% duty or less.[69] This practice encouraged the English to repeat their fraudulent declarations. Charges of English expertise in cheating French customs that appear in several files in the French archives appear to be true.[70] French potters continued to claim that the English were less than honest with the French customs officials after the duty on English pottery came into force in 1787.[71] Manuscripts in the Keele archives suggest that Wedgwood was involved in 'sharp practice'. This, by analogy, implicates English manufacturers in general.[72]

According to other French accounts, the English confused or overstretched the customs officials by arranging that several shiploads arrived within a short space of time. Another ploy was to send complicated paperwork. Most blatant was the practice of listing only a proportion of the pottery shipment on the ship's manifest. This repeated deception reduced the amount of duty paid.[73]

These charges of 'sharp practice' are repeated by other French historians. It is pointed out that from the end of the seventeenth century the English had been accused of seeking 'unilateral advantages and of denying to other countries – and especially to France – any kind of reciprocity'.[74] The English manufacturers were studying the requirements of Article 12 of the Treaty carefully. This has already been mentioned. It concerned the exact wording and precise requirements that the Rouen customs officials worked to.[75] This interest in the exact specifications of the French documentation indicates that English manufacturers were trying to

find ways to avoid or minimise the tariff.[76] This was shrewd and common business practice.

It has also been claimed that English goods got into France either on falsified ships' manifests or in ships that operated under a neutral flag.[77] These could have been Irish vessels. With reference to Queensware coming into France from Ireland, Sykes, the merchant and dealer who handled Wedgwood's goods in Paris and Bordeaux had something to say. He pointed out to Wedgwood that quality products were vital in Bordeaux.[78] This was because there were Irish import houses in the city that were also bringing in shipments of Queensware which sold well. The Murphy house was particularly successful.[79] To hold his customers, Sykes needed to maintain standards. He had difficulty in selling unmarked Queensware goods at the prices stipulated by Wedgwood. The goods had to be made by Wedgwood.[80] Sykes asked Wedgwood not to ship creamware other than his own to fill the orders. The regular customers wanted to purchase goods that were marked 'Wedgwood'. Sykes asked that 'Mr Wedgwood send only of his own fabrick but plain'.[81]

The goods that the Irish importers were bringing in were probably English and were being sold more cheaply than Wedgwood wares. This was common as Wedgwood maintained strict pricing standards. Irish production of comparable quality to Wedgwood was produced again after 1787 when Sykes made the observation. Earlier or contemporary establishments that had produced creamware had been forced to close because of competition in Ireland from Wedgwood and his associates.[82] The Irish Queensware industry was functioning again after 1793.[83] Josiah Wedgwood had stated before the Select Committee in the House of Lords that the English pottery industry had little to fear from the

Irish.[84] In fact he had exerted considerable influence in the affairs of certain Irish Queensware factories and their subsequent demise.[85]

Wedgwood had voiced fears for the English pottery industry. These involved the surreptitious emigration or 'trade' in skilled English artisans going to France using Ireland as an entrepôt.[86] He had been critical of the Irish and their links with the French.[87] Perhaps English manufacturers had exploited these Irish connections to ship their wares to France. This may be another possible clue to the lack of information regarding the presence of English Queensware in France.

With the low import duty the English could still undersell the French potter and dominate the market despite the transport costs.[88] The French also claimed that the English were to be found all over France, posing as travellers but trying to gain knowledge about French industrial processes.[89] They argued that the treaty was to the advantage of the English who did not have to pay taxes such as 'vingtièmes' on their factory premises or cope with the high cost of wood or coal imports.[90] They claimed from the start that twelve per cent ad valorem was not a high enough tariff for the English to pay. English imports of pottery were ruining French sales.[91]

Other experts in trade and commerce compiled their own critiques of the Treaty. One such condemnation was the 'Avis des Députés du Commerce sur l'objet du désavantage que le commerce et les fabriques du Royaume éprouvent de la part du traité conclu entre la France et l'Angleterre et sur les moyens propres d'y remédier'.[92] These members for trade offered solutions to the problems that the trade treaty presented to the Government.[93] On a general level they found the treaty to be disadvantageous to the French manufacturer.[94] Even the Normandy Assemblée Provinciale tried to offer its advice as well as its criticism.[95] It

pinpointed the inexpensive goods and the cheap raw materials that England possessed.[96] It also stated that coal was five times less expensive in England and was the key to the technological advances that the English had made.[97] The Treaty affected many people at many levels and the parties involved wanted their chance at last to express their views.

Du Pont de Nemours, on behalf of the Government, answered the criticisms levelled at the Treaty of Commerce.[98] First of all, in 1788, he acquired recent English data from a 'mémoire' written by a Rouen businessman, Louis Edoucher, who had just returned from England.[99] Then he compiled his refutation of the 'mémoire' published by the Normandy Chamber of Commerce.[100] This document was entitled: 'Lettre à la Chambre du Commerce de Normandie sur le Mémoire qu'elle a publié relativement au Traité de Commerce avec l'Angleterre'.[101]

In this reply to the Chamber, Du Pont tried to explain the exigencies that had shaped the Treaty of Commerce. It had been a conciliatory measure on the part of the French Government to appease the English Government.[102] The French wanted to encourage the English to maintain peaceful links with France.[103] They could not afford another war as the loans, debts and interest incurred during the American War of Independence were still undermining the national Treasury.[104] The real aim of the Treaty was peace. Trade was a secondary consideration. France needed a breathing space to recover after the American involvement. This was how Du Pont explained the situation.

In this 'mémoire' by Du Pont there is a section on pottery.

> Les poteries et faïences Françoises ne peuvent éviter un préjudice notable; le bas prix du charbon de terre permet aux Anglois d'établir ces

> articles à 25 pour cent au-dessous de ceux fabriqués en France. Les faïenceries de Rouen conservent encore le débouché et la préférence qu'elles ont obtenus depuis long-temps dans nos Colonies.[105]

Here was an open admission by a ministerial adviser at the highest level that the French pottery industry was going to be seriously undermined by the Treaty. He could even identify that the cheapness of coal in England would be the ruin of the French potter. His statement that the price of English pottery in France would be twenty-five per cent below that of French products echoes the details given in other commentaries on the Treaty. Du Pont points out that the French pottery manufacturers might have fewer problems in competition with England in colonial markets than at home. In the domestic market 'ils ne pourront pas la soutenir pour la consommation intérieure du Royaume'.[106]

This explanation of the thinking behind the treaty outlined the situation that the French potter would find himself in for years to come. Du Pont states that the French pottery manufacturer would not be able to withstand the competition from English pottery goods in French domestic markets. The Government was instrumental in causing this distress. This at least was how many critics would interpret the situation at a later date.

Du Pont mentioned that large cargoes of English pottery were already in Rouen as well as in most French ports. This was not good news for the English pottery manufactories in Rouen or, for that matter, in France in general. They were, in the words of Du Pont de Nemours, 'privées d'un débit nécessaire pour en assurer la prospérité'.[107] He knew that their ability to sell their goods would be effectively crippled by this influx of cheaper English goods. Du Pont's final comment on the

pottery manufactories in Rouen is that they employed a considerable number of workers. What he did not say was that these workers would soon be out of work.

Even in March 1787, the situation for potters and other manufacturers was difficult. The Government, in Article 9 of the arrêt du Conseil du Roy of 12 March 1787,[108] created a special fund to help manufacturers and merchants who were suffering because of the adverse effects of the Treaty of Commerce. This was part of the Caisse de Commerce and would straddle the Ancien Régime and the regimes that followed. The Treaty of Commerce was a harbinger of things to come. The Cahiers de Doléances would bear witness to the effects of the Treaty of Commerce. In 1789 private individuals would assess the Treaty as follows:

> Le traité de commerce que la France a fait avec l'Angleterre est une principale cause de la ruine du commerce de la France.[109]

Groups of merchants and manufacturers made their wishes clear. Their aim was:

> Solliciter fortement l'anéantissement du traité de commerce avec l'Angleterre.[110]

The Treaty of Commerce would remain a target for criticism in the decades that followed.

5.3 **The Government's stance.**

As has been stated earlier, the aim of this chapter is to show how French industry and French manufacturers were dealt with by the French authorities. The Government intervened in the development of the French pottery industry on a variety of levels over a period of time. There had been a drive to improve the French manufacturing industries since the 1750s and 1760s.

What constituted the Government's stance has already been outlined in different sections of earlier chapters. This section summarises first of all what happened in the Ancien Régime. Administrators and ministers had championed English input into French industry.[111] They had masterminded espionage trips to England in the 1760s.[112] They had backed enticement and recruitment programmes in England and had vouchsafed the industrial development of certain French industries.[113] Some of them had drawn up basic blueprints for French industrial espionage in England in the 1750s.[114] Reports had been written which outlined similar preoccupations in the 1770s.[115]

The French Government was behind the establishment of spying initiatives and the continued operation of a small espionage network in England with contacts in the key industries and in manufacturing areas.[116] Orders could be placed for workers with specific skills or for specialist workers. Agents or contacts then handled the recruitment.[117]

As has been noted in the Samuel Jones case, the French Embassy in London played a role in suborning English workers by acting as an intermediary for skilled craftsmen who were interested in taking their expertise abroad.[118] Funds for travel expenses and enticement that had been sent by interested foreign manufacturers could be located here by the potential emigrant artisans. Mail could pass through the Embassy to France without being tampered with by the English secret service.[119] The French Government was involved at the most fundamental level in the transfer of English technology to France.

Government intervention in industrial affairs operated in the Ancien Régime through the agency of the King's Council, the Council of the Bureau for Trade and the Ministry of Finance. The King's Council passed 'arrêts' and awarded letters

patent that legitimised the manufacturing establishments. It also granted exclusive privileges which empowered the factory to operate with monopolistic prescription within a given area for a stipulated period of time. A few specialist manufacturers exploited the exclusivity of the title Manufacture Royale which was bestowed only on factories that were involved in developing 'new' or 'unique' products.[120] The 'Royal' title was bestowed at the discretion of the Controller General of Finance. He could award grants, loans and in some cases cash gifts.[121] The King's Council also arbitrated in disputes between employers and their workers or apprentices.[122] Government involvement in French industry remained considerable.

In the Ancien Régime the Council of the Bureau for Trade dealt with the everyday minutiae of industrial life. All kinds of permits and documents were required for every aspect of setting up and operating a factory. In addition, the manufacturers had to apply for licences to extract wood, coal, clay or raw materials from French locations or to import them from abroad. Raw materials and goods were also brought from the provinces reputed to be foreign within France.[123] This was often what the manufacturer meant when he referred to importing from 'abroad'. The Council kept a close watch on the state of French industry as did another government body, the Bureau of Factory Inspectors.[124]

Factory inspectors were initially involved in seeing that the government factory regulations were adhered to and that manufactories maintained standards of quality. They toured factories all over the country and gradually transformed their regulatory and minatory role to that of observer and adviser. Government officials and experts were often factory inspectors as well as scientists, bureaucrats, industrialists or administrators.[125] Their contribution to French industry was of

some importance to its development. This was particularly true of the pottery industry.[126] This was government intervention at its best.

There was another aspect to government intervention. This involved formulating industrial policies on a broader front, even within an international framework. The issue of smuggled English goods necessitated state involvement. The Treaty of Commerce of 1787 was the result of government intervention that put political issues before industrial and commercial considerations. The French pottery industry was sacrificed to political expediency. The Treaty of Commerce modified the transfer of English technology while the flow of English goods into France increased. In reports written later to the Government, potters recriminated against the calculated abandonment of the Queensware industry.[127] In the face of continued penetration by smuggled Queensware products between 1790 and 1814, the French authorities had difficulty in addressing the problem.

After the Revolution, Government intervention took many different forms with varying degrees of success. How the State treated manufacturers was also variable. In attempts to keep English smuggled goods out of France laws were passed which once more banned English goods.[128] Special licences permitted the importation of certain items.[129] Industry was opened up to the general citizenry when factory regulations and corporations were abolished[130] with other Ancien Régime institutions like the Factory Inspectorate and the Council for Trade.[131] Later comparable government bodies operated under different names.[132]

A French Patent Office was opened and laws passed to protect and encourage innovative manufacturers to patent discoveries.[133] A national manufacturing Conservatory was founded as a repository for the best and newest in industrial endeavour. Machines and working demonstrations revealed the cutting edge of

French industry.[134] Exhibitions were organised by the Government at a national level and medals were awarded for excellence. Government bulletins and newspapers disseminated industrial and manufacturing news.[135] The Government was trying hard to encourage the French manufacturer to be more self-sufficient, competitive and efficient.

Sometimes the Government was encouraged to intervene when times were hard in an inflationary war economy. It was asked to extend help to the ordinary citizen as well as to the manufacturer. The measure of November 1789 to put the property of the clergy at the disposal of the nation as 'biens nationaux' had been a useful move in the attempt to pay off the debts of the State.[136] In March and April 1790 the 'assignat' had been created as a paper currency.[137] The issue of 'assignats hypothéqués sur les domaines nationaux' was terminated in February 1796.[138] This was followed in March 1796 by a new paper currency, the 'mandat territorial'.[139] It lasted until February 1797.[140] Neither 'assignat' nor 'mandat' was a successful measure.[141] Inflation had been swift to follow their devaluation and failure.[142] Foodstuffs and raw materials had risen in price and were in short supply as was ready cash to buy them.[143] Speculation and a black-market economy were making the continued existence of some business concerns uncertain.[144]

Government loans to manufacturers were available on a limited basis. The establishments that benefited were mainly involved in supplying the war effort or in refurbishing the Imperial residences.[145] Few potters received loans unless they were making porcelain. There were exceptions like the manufacturer of Queensware in Rouen who obtained a substantial loan.[146] Smuggling had not stopped despite government attempts to address the problem.

The authorities did make efforts to address the issues that beset industry as a whole. They did not have the time, the resources or the motivation to make pottery a special project. Products such as metal buttons were of greater importance than pottery in a war context. Smuggling on the part of the English was damaging to French industry in general and not just to potters. The Government attempted to limit this damage. Prohibitions, laws, decrees, fines, confiscations and blockade were all employed as tools of regulation that were, for the most part, ineffectual.

After the Revolution the French Government's attitude to industry was often ambiguous. The D'Allarde decrees had enabled the ordinary French citizen to set up his own business with no restrictions on his behaviour or association with other workers.[147] Shortly afterwards, the loi Le Chapelier restricted the freedoms of the French worker by allowing the State more control over his behaviour. It imposed fines or stipulated imprisonment if the worker formed corporations of any kind with fellow workmen.[148] The number of factories was also controlled by new laws regulating the opening of manufacturing premises.[149] State controls were gradually creeping back. This was necessary because the number of new factories that had opened were putting pressure on national resources and raw materials. This was especially true of wood and coal supplies. The D'Allarde decrees had encouraged the establishment of new industrial ventures. The loi du Messidor An 9 later restricted their number.

The government policy towards industry was less clearly defined than in the Ancien Régime. There were so many other variables and influences that moderated it and forced it to adapt. Changes within the governmental infrastructure altered ministerial perceptions and attitudes. Industry had to serve

the State. The manufacture of pottery had a low priority when the country was at war. Despite this, Queensware factories did survive. The Government may not have injected much in the way of funds into manufacturing. It did, however, put additional resources and opportunities for industrial development at the disposal of the nation.

The most important of these were the 'biens nationaux' which were sold to the nation's citizens so that they could develop farming or industrial initiatives. These national assets included churches, monasteries and convents as well as the sequestered possessions of former nobles or émigrés. In 1789 they were estimated as being worth 3 billion livres tournois. Initially they constituted collateral for all state loans and for the paper currency known as the 'assignat'.[150] It has been estimated that up to six million hectares of lands and estates fell into the hands of the nation.[151] The royal forests were retained as a national heritage but the other possessions were auctioned off over the years to ordinary members of the public.[152]

Purchasers of the 'biens nationaux' paid half at the time of purchase and had to find the balance of the sum within six months.[153] Former convents, monasteries, church buildings and later property belonging to the aristocracy were sold off for sums like 37 000 livres per estate. The Government offered loans to encourage buyers. The 'biens nationaux' were, however, a disappointing source of income for the Government.[154] Prices increased and sums like 81 000 francs were paid by purchasers.[155] Many of the first-time industrialists faced financial ruin as their businesses failed. The loan that they had contracted with the Government to purchase the 'bien national' still had to be paid, however.[156] The Government found it difficult to have loans repaid.[157]

As the case of Sturgeon in Rouen has shown, the Government was not inclined to overlook debts owed to the State, be they past or present instances.[158] It could not afford to. The legacy from the Ancien Régime of fiscal deficit had been exacerbated by the escalating national debt after the American War of Independence.[159] Loans and interest incurred in supporting and supplying the Americans were of considerable proportions.[160] An additional corollary to the war had been that the French army had required expensive modernisation in its fight against the British. There were repeated but unsuccessful requests for the repayment of loans extended to the United States.[161] The Americans had financial problems of their own and took time to meet their debts to the French. The financial outlay incurred in the 1780s and the present demands of a war economy meant that the French Government was always short of funds.

According to contemporary accounts there was a severe shortage of actual cash available and employers were sometimes compelled to pay in kind.[162] There were funds to help manufacturers in trouble but these only applied retrospectively to the concerns that had suffered hardship because of the 1786-87 Treaty of Commerce or because of the Revolution itself.[163] If an articulate and influential entrepreneur like Sturgeon was having problems with the Government about financial matters then the ordinary potter was also having little success in obtaining financial help.[164]

After the coup of 18 Brumaire 1799, government attitudes to industry sharpened in focus. Manufacturers had to be more self-sufficient and independent. State protection and financial backing were rare because the funds were not available. The war effort, public building plans and later the renovation of state palaces had all but drained the country's resources.[165] What the Government offered was kudos and renown on a national basis. In the Ancien Régime privileged

manufacturers had affixed the title Manufacture Royale to their invoices and catalogues.[166] Pottery companies now added puffs in their advertising material about the medals awarded in national exhibitions.[167] The Government organised and publicised these trade events. With commendations and medals, these manufacturing fairs represented country-wide competitions.[168]

Encouragement to industry remained circumspect. The trade fairs continued and provided statistical data on the state of French industry.[169] The Bureau des Arts et Manufactures published official newspapers and Bulletins which concentrated on the new and useful aspects of French manufacturing.[170] Names of manufacturers and brief articles about their product appeared for all to read.[171] This was another cost-effective means of encouraging the French manufacturing community. It also fostered competitiveness among French potters and other manufacturers alike.

This was what Neufchâteau who was Minister of the Interior on two occasions between Year 5 and Year 8 had advocated.[172] He was one of the government officials who addressed the problem of the English influence on French industry. Nicolas-Louis François de Neufchâteau had been a member of the Legislative Assembly in 1791, the Convention in 1792 and a judge in Châtenois between 1792 and 1797. After 1808 he was known as comte François de Neufchâteau.[173]

He became Minister of the Interior from 15 July until 9 September 1797. He was then a member of the Directory until May 1798. His second spell as Minister of the Interior lasted from 17 July 1798 until 22 June 1799.[174] He was interested in industry and in helping French manufacturers to survive the difficult times that they faced.[175] His influence and ideas were beneficial and innovative.[176]

The steady flow of 'mémoires' from manufacturers and a general industrial correspondence gave Neufchâteau some information about the state of French industry.[177] This was not enough to formulate a comprehensive view. The aim of the Government was to create a national ethos of confident, competent manufacturers whose energies were channelled into trade rivalries and not directed towards criticism of the State. The 'mémoires' that pottery manufacturers sent to the Government indicate, however, that they had retained their critical faculties. French industry was supposed to function efficiently and independently. The impetus of government industrial policy, especially under Napoleon, was to encourage manufacturers away from dependence on the State and into a more competitive, dynamic and entrepreneurial attitude.

French potters made it clear in countless 'mémoires' to the Government that its grasp of industrial reality needed to be reviewed.[178] Ministers acknowledged the fact that English goods were on sale everywhere and that the perennial problem of English smuggled goods was still an issue that had to be tackled.[179] Sometimes the potters were better informed about contraband English consignments than the government officials to whom they directed their criticisms.[180]

Loans were made to manufacturers but the system employed was complex and expensive both to the State and to the industrialist. It was, on the whole, ineffectual. It is, however, inaccurate to say that the State did not attempt to address the problems that were facing French manufacturers after the demise of the Ancien Régime. Potters at this time sometimes received personal replies from government ministers who tried to remain attuned to industrial needs.[181]

In a circular dated 9 Fructidor Year 5, Neufchâteau asked his regional administrators for the industrial statistics of their departments.[182] As a

professional, he could not devise any kind of industrial strategy unless he had the appropriate facts and figures at his disposal. Collecting information about industry would have been the job of the Factory Inspectorate in the Ancien Régime.[183] As Minister of the Interior, he requested information on factories and their entrepreneurs, particularly if the managers or owners were dynamic and successful.[184] He wanted details of mechanisation in French factories and how extensive it was.[185] He asked the regional administrators to make statistical comparisons with the state of industry in their region in 1789 and in Year 5.[186]

Neufchâteau extolled the praises of agriculture and industry:

> L'agriculture et l'industrie vont prendre leur essor et recevoir enfin des développements nouveaux.[187]

He repeated the same sentiments when he was Minister for Finance.[188] As Minister of the Interior, he received only six replies to his request for information in Year 5.[189] He was more successful with the circular dated 27 Fructidor Year 6, when his regional administrators returned eight replies.[190] Undeterred, Neufchâteau found other ways of gathering information on industry.

In 1798 he organised the first national trade exhibition in Paris which attracted participants from all over France.[191] It was under his aegis that the Bureau des Arts et Manufactures was set up to deal with general industrial matters.[192] Neufchâteau was also instrumental in establishing the Conseil des Mines which specialised in giving out information on coal and coal-fired technology.[193] Technical booklets were written on his instructions and distributed to manufacturers.[194]

Like most of the other essential commodities, wood was in short supply and coal was being promoted as an alternative fuel. This was probably why the Government had sent the expert observer, Picquet, to assess the peat-fired kilns[195] of an English entrepreneur, Chamberlain, in the early days of the Republic.[196] Coal was neither plentiful nor cheap.[197] It was, however, available from satellite or allied countries. The French manufacturer required help in assimilating the necessary technical skills involved in using coal technology.[198] The difficulties that the entrepreneurs in Rouen and elsewhere had faced in the 1770s and 1780s were testimony to this.

During the Directory and under Napoleon, Neufchâteau repeated that the Revolution had brought benefits to French agriculture and industry.[199] He itemised the benefits at length. Vast tracts of valuable property no longer remained unused in the control of the Church.[200] Since 1789 the citizens of France had been able to 'turn to farming or set up interesting industrial projects' in the 'biens nationaux'.[201] As has been mentioned, former aristocratic holdings, together with monasteries and convents, had been purchased by ordinary citizens with government encouragement in the form of state loans. Manufacturing and industrial endeavour had been opened up.[202] Later laws moderated the behaviour and association of French workers.[203] Neufchâteau stressed the benefits that the State and the Revolution had brought to the French entrepreneur.

He asked his regional administrators to compile data on the number of 'biens nationaux' that had been bought in their departments.[204] They were also to send him statistics on the industrial exploitation of these premises.[205] The Minister must have known that the success of these 'patriotic endeavours' was not always assured. He had received many pleas for help from new owners of these

properties. A recurrent problem was lack of funds because of the expenditure involved in setting up the manufacturing concern.

Citizens had invested large sums of money in the purchase of properties or estates. As has been mentioned they were often heavily in debt to the Government for loans granted in the initial purchase of the 'bien national'.[206] They had then incurred further capital outlay in buying the necessary equipment for the branch of manufacturing that they wanted to establish.[207] In addition, they had often spent money on converting the convents and monasteries into practical working environments.[208] Sometimes spacious workshops were the result and the undertaking a success.[209] The development of a 'bien national' was not entirely without problems. Neufchâteau did not mention any of the possible difficulties that the new owners might incur. He simply asked his administrators to supply him with the relevant information.[210]

At the end of his 'mémoire' on French industry, Neufchâteau commented that the imminent Treaty of peace in 1802 would bring another important advantage to French manufacturers. This would involve the number of foreign workers who would come seeking employment, keen to 'jouir en France des douceurs d'un régime libre et d'un ciel tempéré'.[211] The reference applied to the English that he had kept out of the regenerative equation up till then. Neufchâteau did not stress the English influence on the French industrial scene. Perhaps he wished to move French industrial thinking away from the focus on everything English.

When the Treaty of Amiens had ended in 1803, France and England were once more on a war footing and the arrival of English workers in France was therefore less direct. After the decree of 2 Prairial An 11, all English males over the age of eighteen years of age were designated as 'prisonniers de guerre' and 'otages' of

the French Government. They were to be held as surety for the good treatment of the French prisoners of war in English custody. This affected the status and mobility of English workers in France. In consequence, the branches of French industry that relied on English workers were also liable to disruption. This aspect of French industrial history will be dealt with in more detail in Chapter 7 of this thesis.

In 1802 Neufchâteau wanted his prefects to outline potential industrial development to manufacturers in their departments. As the Government repeated from time to time, the French citizen, businessman and manufacturer, often the one and the same, had many advantages that could be used to advantage. The government message to be conveyed was that they should appreciate their assets and exploit their potential as innovators and businessmen. The Government wanted to see more entrepreneurial independence. French industry had to develop in a more dynamic mode. The State had neither the time nor the funds to support aggrieved failures.

Besides the open access to new work premises, there were loans offered by the Government to help industry. Applications for loans had been among the most frequent requests from potters and other manufacturers. In Nivôse Year 9 Neufchâteau, drafted a Mémoire sur les difficultés qu'éprouve le remboursement des avances faites à des manufactures.[212] The system of loans developed by the Government in the 1790s had been in use with limited success. Neufchâteau's report outlined the difficulties that the authorities had been experiencing in having the loans repaid.

The system of loans to industry operated in the following manner. Manufacturers applied to the Government for a loan. The criterion for a successful application

usually depended on what goods were being produced. The preference was for products that were of use to the nation. This meant items that were useful to the war effort, like blankets and cloth for clothing, uniforms or bedding. The renovation and building programmes for the Imperial palaces also promoted furnishing specialists, producers of crystal and glass for chandeliers and mirrors. Manufacturers of velvet, porcelain and tapestry were also favoured. Unless they were producing porcelain, potters generally did not receive grants as their wares were not luxury items. There were sometimes exceptions to this rule if a specific area of endeavour was being fostered and the Government wished to signify its support. In one case a manufacturer called Delavigne in Rouen was producing high quality English Queensware.[213] He was awarded a loan of 40 000 francs to sustain and develop his business. The Government encouraged this attempt to challenge the domination of English Queensware in French markets.[214]

The Government dealt with the manufacturing community within the context of prevailing economic and wartime strictures. The loans made to manufacturers were often more exploitative than paternalistic. It made contracts with factories to manufacture a stipulated amount of produce.[215] With any government order came factory restrictions and rules.[216] The hours were longer than normal and the rates of pay were also kept low.[217] Government workers were subject to fines and punishment if they did not conform or obey.[218] Factories with government orders needed money to buy large quantities of raw materials to produce their quota of goods.[219]

A major problem for these factories was that the Government did not pay its bills on time. Sometimes it did not pay its bills at all or honour its promises.[220] There are instances in the industrial files that indicate this over a period of years.[221] The

State needed goods and its citizens had to produce them. If some factory owners were ruined in the process then this was an acceptable liability. The harsh facts of a war economy dominated French government thinking. If French industry was to thrive and compete it had to be autonomous. The State applauded and publicly commended its efforts but could offer little in the way of tangible incentives like infusions of hard cash.

The majority of manufacturers, and this included potters, received no financial help.[222] Although some money went to manufacturers involved in contracts for the Navy or the Army.[223] These entrepreneurs were often in distress because the State did not have the necessary funds to clear its debts to its own manufacturers.[224] It could offer loans on paper but could not supply cash for the consignments of goods that were delivered.

There were additional disadvantages. Manufacturers with government contracts were forced to remain open even when they were ruined and wanted to cut their losses by closing.[225] This meant that they had to negotiate further borrowing from the State or from the private sector. Unpaid by the State and exploited by speculators and money-lenders, some French manufacturers despaired.[226]

Manufacturers with state contracts were forced by law to pay their workers' wages even when there was no work or no income. In a factory with a government contract, the hours of employment were long, from six in the morning till eight at night.[227] Some manufacturers offered to work for nothing doing repair jobs in order to stay open and save their businesses.[228] The moment they closed their doors they had broken their contract. The Government then demanded repayment of its loan. When this was not forthcoming it seized their goods and then their premises which would be sold at public auction.

The Government's attitude to industry was of necessity ambiguous. The war dictated its own fluctuating rules and the manufacture of pottery had less priority than the manufacture of some commodity useful to the war effort. The Government did commit itself to industrial endeavours. Quality, merit and entrepreneurial dynamism did not always ensure the continued support of the State. Agreements were cancelled without warning.[229]

The intent of the Government was not to ruin its manufacturers especially its more thriving and successful practitioners. Sometimes events intervened and it was forced to withdraw its patronage. This was what happened in the case of a well-known manufacturer of Queensware in Paris. In 1808 François-Louis Ollivier had been given a personal commission by Napoleon when he visited his premises in the Faubourg Saint Antoine.[230] He had been asked to manufacture the street numbers for the whole of the capital. Molard, the Director of the Conservatoire des Arts et Métiers, had been a witness to this commission. Ollivier had already embarked on full production when Chaptal, the Minister of the Interior, had been forced to cancel the assignment. Ollivier eventually had to sell his premises and its entire contents in public auction.[231]

As a manufacturer and businessman, Ollivier had operated in this industrial sector of Paris for decades.[232] His Queensware was of high quality and his training record good.[233] Several of his trainees had gone on to manage their own factories in and around Paris.[234] These included Ollivier's own son and the Paillard brothers.[235] Some of Ollivier's inventions used in pottery manufacture were exhibited in the Conservatoire des Arts et Métiers in Paris. A businessman and entrepreneur of this man's calibre was, according to his own account, ruined when the Government cancelled his commission.[236]

Perhaps there was more to the situation than Ollivier related. That a manufacturer of his experience and standing should have shown so little business acumen seems inconsistent. He argued in his 'mémoire' that he had absolute faith in the word of the Emperor. At any rate, he had made a considerable financial outlay without guarantees from the State.[237] To meet his debts he had no choice but to realise his assets and sell his factory.[238] The Government's side of the story was not given in any detail.

The manufacturers who accepted commissions from the Government were thus in an invidious and sometimes precarious position.[239] Often these factories did not have the funds to meet their own financial commitments because the Minister for War or the Minister for the Navy had ignored their repeated requests for payment.[240] The less reliable payer of the two was the Minister for War. Some manufacturers had been owed money since Year 5.[241] In a war situation this was understandable. It was also hard on the manufacturers involved.

When an entrepreneur was granted a loan from the Government the sum might only be for 7000 or 10 000 francs. The Government demanded surety in the form of a specified quantity of sample items. These goods were stored in a government dépôt after they had been vetted by experts who verified their quality. If the loan was repaid in full and on time the goods were returned to the entrepreneur. If the payment was late some of the goods were sold. If the loan was not repaid the entire amount of the bonded goods was sold to meet the debt. In cases where the proceeds from the sold goods did not settle the loan in its entirety, the manufacturers remained indebted to the Government.

Thus a blanket manufacturer or a cotton producer could end up without any goods, without any payment and still be in debt to the Government. He might also be

deprived of his actual factory premises. It is indicative of the hard economic pressure on manufacturers during this period that there were still factory owners willing to take on the dubious benefits of government loans and state contracts.

Neufchâteau had studied this system of loans carefully and had been petitioned on numerous occasions by desperate manufacturers. His suggestion to his fellow Ministers was that the manufacturers who were owed money by the Government should not be forced to repay their loan to the Government until they in turn had been paid in full by the State.[242] Neufchâteau even proposed that the Government should wipe out these debts as a gesture of encouragement to French industry and as an 'acte de justice'.[243] How encouraging the French State was is not recorded.

Government help to French industry in the form of loans was fraught with problems. As the Peace of Amiens drew near, Neufchâteau deliberated on a fresh government policy for the encouragement of industry. In 1802, as Minister for Finance, he sent a printed 'mémoire' to his colleagues and departmental administrators, the title of which was as follows:[244]

> Moyens d'encouragement que le Gouvernement s'empressera de répandre sur le commerce, les manufactures et les arts, dès que la paix générale et définitive permettra de consacrer quelques parties du revenu public à faciliter la reproduction de notre travail annuel.[245]

The aim of Neufchâteau and the Government was to invest a certain amount of public money in industry and manufacturing. These incentives would come from the loans previously allocated to manufacturers involved in supplying the war effort. The Peace of Amiens would release government funds in a war-free economy. These would go towards the development of French trade and

commerce. As Minister for Finance, Neufchâteau was circumspect about 'handing out costly cash advances in a prodigal way'.[246] He also wished to avoid lobbying and intrigue as manufacturers jostled for a share in the hand-out.

His aim was to reward those industrialists who were thriving and had made successful attempts to improve their working methods and the standard of their product. Quality and technical improvements were the keys to future industrial success according to Neufchâteau. He admitted that foreign competition was often a problem.[247] He suggested that the Government adopt 'regenerative principles' to help French manufacturers only when they had cut costs and 'adopted the means of making our workshops flourish'.[248] This government help was not for industrial liabilities but for the more successful. This was probably why Neufchâteau had requested information on successful entrepreneurs some years earlier.[249]

He exhorted his prefects to convince the manufacturers in their regions of 'l'assurance positive de la protection spéciale du Gouvernement'.[250] A particular bonus for industry when peace came would be the number of conscripted workers who could return to industry.[251] There had been a dearth in the industrial workforce for some time. Manufacturers in their letters to the Government had highlighted this.[252] There were requests from potters or their employers to the Minister of the Interior or the Minister for War to release certain individuals from military or enforced state service.[253] Neufchâteau stressed the advantages that the return of a knowledgeable and skilled workforce would have on French industry.[254]

Another point that he repeated was the need to improve the quality of French manufactured goods.[255] He talked of 'l'ardeur pour créer des ouvrages

perfectionnés en tout genre'.[256] Making a better product would then encourage sales at home and abroad.[257] The argument was that quality French goods would ensure effective competition. Thus, the enduring question of English manufactured goods recurred.[258] Smuggling affected the industrial situation which did not improve generally in the sanguine way that Neufchâteau had hoped. The Peace of Amiens was short-lived and the funds available for industry were consequently reduced by the resumption of loans to manufacturers involved in the war effort.

In the years that followed the situation worsened to such an extent that Neufchâteau himself wrote to Montaran, the Minister of the Interior: 'Les fabricants sont ruinés'.[259] The French manufacturer needed help from the State. Marketing facts had to be faced and government promises of support realised. English smuggled goods still penetrated the French market no matter what Napoleon decreed or what laws were passed. 'Circumstances are becoming more problematic for commerce' was how Montaran expressed it to Napoleon who was on campaign near Finckenstein.[260]

Despite military pressures, Napoleon drafted documents in which he expressed his unease that so many manufacturers were in serious difficulties. He endorsed further loans to French industry in the memoranda that passed between himself, Montaran and Neufchâteau at this time. He stipulated that: 'At all costs, no factories must close down'. He ordered that: 'The workforce must be employed'.[261] Napoleon had no desire to have unemployed workers fomenting unrest while he was on war manoeuvres. Montaran side-stepped the political implication and extolled Imperial concern: 'Sa Majesté voulait donner du travail à la classe ouvrière'.[262]

The complex system of loans to manufacturers was extended by the Imperial Decrees of 28 March and 11 May 1807.[263] Applications had to be made to the Minister of the Interior and loans were allocated through the Caisse d'Amortissement.[264] Following a long-standing precedent, expert officials were employed to inspect the compulsory deposition of goods as surety for the loan. These 'commissaires experts' and their quality control were paid for by the Direction générale de la Caisse d'Amortissement.[265] By October 1809 only a small number of manufacturers had received loans which amounted to over a million francs.[266] This was far less than had been allocated in 1807 when six million francs had been apportioned.[267] There were never enough funds to be of effective use to the struggling manufacturers.

In 1808 Montaran sent Napoleon a report on the smuggling that took place along the Belgian coast.[268] He formulated a government plan to exploit this smuggling. There had been frequent arrests as the traffic in clandestine goods was considerable. Those who handled smuggled goods had been fined and their goods confiscated.[269] By the Imperial Decree of 18 July 1808, the French Government codified this systematic exaction of fines on any merchant or dealer who brought illegal imports into France using this route.[270] The fines imposed on the 'fraudeurs de la Belgique'[271] went into a special fund that was 'to be used to foster French industry'.[272] The decree of 1808 set measures into motion that collected 1 400 000 francs in fines.[273] A later decree of 4 January 1810 realised much more, 3 600 000 francs.[274] Napoleon immediately commandeered half of this sum for public works which in effect usually meant the refurbishment of an Imperial residence.[275]

Montaran never had enough money to help manufacturers effectively. He drafted several reports to Napoleon suggesting that the funds that he was being allocated were not sufficient to be of much use.[276] His ministry required a separate and undivided source of funds. He requested a minimum of one million francs per year for French industry. He claimed that the target figures on the projected sums collected for the Fonds de la Contrebande were too high at 1 800 000. The amount collected in June 1810 was only 732 858 francs.[277] When administrative costs had been deducted, informants paid and the public building allocation removed, Montaran had been left with only 467 883 francs. This, he argued, was totally inadequate.[278]

In the following year he requested yet again that the Emperor grant him another source of funds to subsidise French industry. He pointed out that the funds from the Belgian operation were becoming harder to collect. The smuggled English goods coming through Belgium were less easy to locate and confiscate.[279] Informants, however, remained just as expensive as did the administrative costs involved.[280]

English goods continued to constitute a serious problem for the French manufacturer and for the French Government. A report dated 30 April 1812 stated that smugglers were still being fined and accounts and administrative costs were outlined.[281] Even in 1812 the French consumer still bought English goods. The French Government could, as ever, do little about this consumer trend.

5.4 **English aspects.**

French government reports on England in the 1780s expressed surprise that such a diminutive island with such a small population could be so successful in trade and commerce.[282] There were few workers and they were expensive to employ.

Yet there appeared in France English goods that were cheap, handsome and everywhere available. They outsold French wares. French government observers were amazed at how the English manufacturer had achieved this.[283]

There are frequent references to the backing of the English Government and its mercantilist measures to protect English industry.[284] Some French observers argued that England was too protectionist.[285] Others saw the calibre of the English worker as a vital factor in the industrial equation. Industrious, skilled and adaptable, the English worker-manager-entrepreneur was admired by French diplomats and administrators. His ingenuity and acceptance of innovation as an integral part of the industrial process were valued and praised by French critics and bureaucrats, not all of whom were technocrats.[286]

They were also struck by the fact that derogation was not operative in England.[287] The theory was that England was not a large country and that people with money had little alternative but to invest in trade.[288] These views of English commercial involvement date from the early eighteenth century but they persisted. Later French critics maintained a similar view of English entrepreneurship.[289] Modern French historians continue to stress this 'propensity to idealize English society, especially in its commitment to business'.[290] They suggest that the French perceived the English business and merchant class as being socially mobile and more productive than its French counterpart.

It has, however, already been pointed out in Chapter 2 that this French subscription to the theory of upward social mobility and an open elite in England was less than accurate. The English commercial or trading class was not more socially active or productive than its French counterpart.[291] Such assumptions about a dynamic, upwardly mobile and entrepreneurial middle class have been

called 'a misperception of what an open elite means'.[292] In addition, it is argued that derogation was also applicable to England.[293] Some English historians even claim that it was easier for the French business or merchant class to be upwardly mobile. This was effected by the 'institutionalised sale of offices carrying noble privileges' to an elite.[294] Despite the myths and preconceptions that they had of England, together with its strengths and weaknesses, the French identified aspects of English development that merited further observation and assimilation.

As in England, commercial theories like mercantilism had long pervaded French economic thinking.[295] French exports had risen by the late 1780s but imports had also escalated.[296] This is where the concept of consumerism emerged. Historians have expounded the theory that eighteenth-century society was swayed by the dictates of fashion and was influenced by what it could buy.[297] The population was no longer prepared to exist on 'necessities'. Increased wages and higher income had encouraged it to require 'decencies'.[298]

It has been argued, however, that it was 'extremely unlikely that all the extra consumption could be absorbed by the top layers of income'.[299] The role of commercialisation in production underpinned this change in consumer habits.[300] This has been called the 'richness of the commercial response'.[301] English manufactured products in France initiated the beginnings of a French consumer revolution. Skilful and persistent entrepreneurial mechanisms allowed English pottery to penetrate French markets which were closed to it. English commercial and industrial measures, according to the French, were backed by the English Government.[302] As has been mentioned earlier, this policy advocated 'unilateral advantages' that denied any kind of reciprocity.[303] It had also been called 'sharp practice'.[304]

Contemporary French observers remained bemused by the competitive commercial advantages that English goods enjoyed. It took some time before technology was pinpointed as being one of the key factors in this success.[305] In 1784 a French commentator and admirer of English manufacturing dynamism pointed out that the English produced manufactured goods that were 'either new or made more cheaply and of better quality thanks to new methods'.[306] The marquis de Biencourt added that:

> An English workman does more work than six Frenchmen and does it better, so that the country can withstand foreign competition despite the dearness of labour.[307]

He also observed that:

> Englishmen are sensible enough to manufacture for the people much more than for the rich. They are able to sell a great deal and regularly.[308]

These were the perceptions that the French had of the English in the eighteenth century.

There are references to the English in petitions and documents in the industrial files. Government officials, pottery manufacturers and even those looking for employment talked about the English.[309] 'Anglomanie' became a recurrent term in reports and official memoranda.[310] Manufacturers and ministers alike acknowledged that the French consumer preferred English to French pottery products even when they were sold at the same price.[311]

French potters tried all sorts of measures to encourage the domestic market to buy French goods and disregard their preference for English items. Sometimes they

sold at a loss to clear their stocks or to keep their workers in employment.[312] On other occasions they sold on the instalment plan.[313] Nothing seemed to work as the French consumer continued to buy the cheap English pottery. There were also instances when French manufacturers sold English imports as French products.[314] This happened in the metal button industry and probably also happened in the pottery trade.[315] It is possible that this was a current and perhaps more frequent practice than has previously been identified.[316]

A case in point deals with creamware shards found in Paris during excavations in 1987. These shards, dating from the period in question, were identified as English by an English ceramic historian.[317] The argument from the French side was that these items were of French provenance because similar pieces had been labelled as such by French antiquarians.[318] This archaeological evidence had been located in the courtyard of the Louvre where the national French trade exhibitions organised by the Government had taken place from 1798 onwards.[319] English smuggled goods were perhaps being passed off as French products. They would certainly not have been sold openly as English wares.

The English influence on the French pottery industry at this time is also indicated by the frequent references to smuggled English pottery that was available everywhere.[320] French potters could not compete with the English product. Renewed bans had been imposed in 1791 and 1797.[321] The English were once more criticised for their skills in smuggling.[322] French ports continued to see consignments of illegal English wares.[323]

This situation persisted for decades in spite of the measures taken by the French Government. At a later date, under Napoleon, smuggled goods from England were so widespread that government policies were formulated and laws passed to

address the issue.[324] As has been mentioned, fines were imposed on French merchants dealing with the English imports that penetrated French markets through Belgium.[325]

The French Government generally tackled the question of English smuggled goods in sporadic bursts of protectionist measures that never completely eradicated the problem. There were always English goods available when there should not have been any at all.[326] The continental blockade was probably the most effective French measure against smuggling and even that was flawed and open to abuse. It was blatantly evaded by the English. There is contemporary satirical comment to suggest that this was the case.

In January 1807 the political caricaturist, Isaac Cruikshank, published a cartoon entitled: 'The Giant Commerce overwhelming the Pygmy Blockade'.[327] The figure of England is depicted as a giant standing confidently on the English side of the Channel. France is symbolically represented by Napoleon shown as a pygmy. With great élan the giant is engaged in hurling a miscellany of English manufactured goods across to France. These include Birmingham buttons. The giant's clothing is covered with the names of other products that are being sent to France. Staffordshire ware and Wedgwood ware figure on his headgear along with Derby porcelain.[328]

English manufacturers' records for this period do not indicate that there were sizeable shipments of English Queensware being shipped or rather smuggled into France at this time.[329] The French archives, however, state repeatedly that English goods were on sale everywhere[330] and that the most humble of consumers were using English pottery.[331] Dealers and merchants on both sides of the Channel were probably responsible for the clandestine shipments. It is hard to

believe, however, that the manufacturers themselves had no knowledge of this traffic. The French continued to blame the English potters.

Smuggling persisted. The Trianon Decree maintained the ban on English imported goods. It was, however, no more successful than the Berlin [332] or Milan Decrees.[333] Smuggling continued to undermine the French manufacturer. The Fontainebleau Decrees reveal the exasperation felt by the French authorities and in particular by Napoleon himself.[334] They stipulated that any smuggled English manufactured goods that were found in France were to be seized and burned.[335] Manufacturers in England were facing their own problems within a war economy and production fluctuated. According to the French industrial files, however, English wares continued to penetrate French markets.[336]

5.5 **Conclusion.**

A persistent English theme was that of smuggling. Illegal English pottery was found in quantity all over France according to administrators like Calonne and Du Pont de Nemours. These bureaucrats even stated that English pottery was on sale in Paris itself. The situation had grown so problematic for the French Government that it had created a department to deal with the seizure of smuggled English goods. This Bureau organised the sale of confiscated pottery and other manufactured goods. The Government was also aware that the French consumer preferred smuggled English pottery because it was cheaper than the French product which was likely to be imitation Queensware. The smuggled English wares were of better quality than the French equivalent.

In the 1780s, pottery and smuggling were identified with the English. The Controller General of Finance drafted a report which emphasises all these aspects. The specialist adviser to Vergennes on the Treaty of Commerce

devoted a 'mémoire' to English pottery and its effect on the French pottery industry, particularly in Rouen. In the minds of many Frenchmen pottery and smuggling became synonymous with the English. The Treaty of Commerce was supposed to legitimise the penetration of French domestic markets and bring in revenue for the French Treasury.

Several commentators of the Treaty pointed out that coal was crucial in the industrial success of the English pottery manufacturer. They were at this point referring to the cost-effectiveness of the fuel rather than the technical input or process. Chambers of Commerce, government inspectors and ministerial advisers stated that coal was the key factor in any English industrial success. They had grasped the importance of coal.

This is important in the context of Rouen where Sturgeon had minimal success in proselytising other Queensware potters to adopt a coal-fired technology. The coal initiative in Rouen lacked the bureaucratic muscle of inspectors and technocrats like the Holkers. Perhaps the recalcitrance of the Rouen potters mitigated against any success. This may have been another reason why the Holkers kept out of the picture. They had already assessed the situation and gauged the outcome.

The Treaty of Commerce apparently had little to do with trade but a great deal to do with politics and the avoidance of war with England. The English had pressed hard for the removal of the prohibitions on English goods and in particular on English pottery. The French Government had used the French pottery industry as a pawn in a wider international game in which the stakes were peace and an economic breathing space.

The French had preconceived ideas about the English and their entrepreneurial drive with governmental backing. They misconstrued the concept of an open elite, a landed elite that manipulated English commercial interests. They continued to assert that the English Government underpinned all that happened on the commercial and trading front.

The French were slow to understand that the consumer movement in England would have repercussions in France. It would change consumer patterns after the Revolution. This was when autonomies and freedoms that had hitherto been unimaginable released the upward momentum of French purchasing potential. The French pottery market became consumer-driven.

The French and the English needed time to regain their economic and political equilibrium after the effort and investment in the American War of Independence. French involvement in the American conflict and the subsequent war with England had seriously undermined the economic strength of France by 1786. The French Government had sacrificed the French potter to the competitive onslaught of shiploads of legally imported English pottery. The pernicious and relentless effect of smuggled goods was followed by the legal imports of superior and cheaper English goods.

The Treaty of Commerce of 1786-87 had a profound effect on the French pottery industry. The Government made available a special fund to help those manufacturers or merchants who had suffered financial loss after the Treaty of Commerce. Throughout France it was regarded as a disastrous error of judgment on the part of the Government and would be evoked at a later date as an episode in French manufacturing history that should not be repeated.

The industrial files also suggest that government measures were for the most part ineffectual in controlling the steady flow of clandestine English goods into France. Protectionist measures like import bans, laws and Imperial decrees were slightly less effective than the Continental Blockade. None of them worked. English political satire of the period emphasised this point. The Ancien Régime institutions that were disbanded or abolished early in the Republic reappeared later with different names but similar functions.

The title of Manufacture Royale no longer existed to indicate manufacturing excellence but an enterprising factory could win a gold medal in a national trade exhibition. Exclusivity had given way to democratisation. Government Bulletins and trade papers publicised manufacturing news and tried to maintain national pride in industrial progress. In the same way working museums exhibited the best and newest in machines and technology. Government ministers had pamphlets printed to help the manufacturer understand new technologies. This was the benign face of a paternalistic State.

There was, however, a less beneficent aspect to the Government. Nationalism had been encouraged in the patriotic exploitation of the 'biens nationaux'. Despite government propaganda and promises there was no guarantee of actual help from the State. The 'positive assurance and special protection' of the State were fictions. There was also conscription and enforced labour on state building sites. In a war economy this was acceptable. The lack of a skilled workforce was a problem for manufacturers. The State harried manufacturers who owed it money but often did not honour its own debts to the very manufacturers that it was ruining for non-payment of debt. It is unlikely that there were many 'acts of justice' that Neufchâteau recommended.

After the Revolution, the Government's attitude towards the worker was not paternalistic. It controlled and restricted him and took the employer's part against him in wage disputes. This situation was quite different from that of the worker before 1789. The apprentice or worker in the Ancien Régime had the right to take his grievances to the King's Council if need be. Napoleon preferred to have the bulwark of the employer between the State and the working class. His Code Civil reinforced this. He remained, however, interested in industry. What he could not control was the influence on French industry from smuggled English goods which were sometimes sold as French products.

The French were about to exploit English willingness to bring English methods of production and decoration to France. This is the next stage in the continuing transfer of English technology.

Chapter 5 Endnotes.

[1] Hansard, The Parliamentary History of England from the Earliest Time to the Year 1803 (London, 1814), XX 111 series 1, 1782-1783, p. 1166.
[2] A. N. A. D. X I 42, 17 July 1785, Calonne.
[3] Idem. Arrêt of the Council of State of the King Concerning the banned foreign Goods in the Kingdom.
[4] Idem. 'and especially what is produced in English factories'
[5] Idem. 'The fashion and whim for these goods constitutes a preference which is discouraging from the point of view of national industry.
[6] Idem. Calonne argued that 'it was all the more intolerable that French goods are excluded from England'.
[7] Idem.
[8] Idem.
[9] Idem. 'the freedom of indulging their taste'.
[10] Idem.
[11] Idem.
[12] Idem.
[13] Idem.
[14] Idem.
[15] Idem.
[16] Idem.
[17] Idem.
[18] Idem.
[19] Idem.
[20] Idem.
[21] Idem.
[22] Idem.
[23] Idem.
[24] A. N. F 12 1497, 1793, Houzé.
[25] Idem.
[25] Idem.
[26] Idem.
[27] Idem.
[28] Eleutherian, A A E M/D 65 Affaires Etrangères, Du Pont de Nemours.
[29] Ibid., Angleterre, 534, fos 97, 270, unpaginated.
[30] Idem.
[31] Idem.
[32] Idem.
[33] Idem.
[34] Idem.
[35] Idem. 'England has temporarily a big advantage as far as Pottery is concerned'.

[36] Idem. 'It is not that we cannot eventually imitate and perhaps outstrip English Pottery but this can not in the long term be exclusive'.
[37] Idem. 'The only real advantage that the English have in this manufacture is the moderate price of the coal that they consume'.
[38] Idem. 'But that does not prevent the fact that while we wait English pottery is preferable to ours, and that there is a large consumption of it and that our Shops are full of it despite the Ban'.
[39] A. N. A D X 142, 17 July, 1785, Calonne.
[40] Eleutherian, A A E 65, 534, Angleterre Correspondance Politique 536 fos 13-14, 4 January 1782, Du Pont de Nemours to Vergennes.
[41] Hansard, The Parliamentary History of England, p. 1166.
[42] Idem.
[43] Eleutherian, A A E M D 65 Affaires Etrangères Du Pont de Nemours, Poterie, unpaginated.
[44] Idem.
[45] Idem. 'While we are waiting we cannot refuse entry to English Pottery'.
[46] Idem. 'We cannot refuse entry to England that demands this as an urgent stipulation; indeed we could not refuse to open (our ports), since England has the means of having Pottery penetrate right to the Capital, in spite of our refusal'.
[47] Eleutherian, A A E C P Angleterre 536 fos 13-14, 4 January 1782, Du Pont de Nemours to Vergennes.
[48] Idem.
[49] Idem.
[50] Eleutherian, A A E C P Angleterre 539 fos 33-35 bis, 25 November 1782, Du Pont to Vergennes.
[51] Idem.
[52] Idem.
[53] Hansard, The Parliamentary History, p. 1166.
[54] Eleutherian, A A E C P Angleterre 539 fos 33-35 bis, 25 November 1782, Du Pont to Vergennes.
[55] Idem.
[56] Idem.
[57] Eleutherian, M/D 65 I r 24. 32, Du Pont de Nemours.
[58] Idem.
[59] Henri Sée, 'The Normandy Chamber of Commerce and the Commercial Treaty of 1786', in Economic History Review, 11, Part 2, 19 (1923), p. 308.
[60] A. N. F 12 730, Dallery.
[61] Archives départementales, Seine-Inférieure, C 1092, Observations préliminaires, 1788.
[62] Sée, 'The Normandy Chamber of Commerce', p. 309.
[63] Idem.
[64] Simon Clicquot de Blervache, Considérations sur le traité de commerce entre la France et la Grande-Bretagne, du septembre 1786 (Paris, 1789)
[65] A. D. Seine-Inférieure, C1092, Observations préliminaries, 1788.
[66] Idem.
[67] Idem.
[68] Idem.
[69] Eleutherian, W 2 340 106, February 1788, Du Pont de Nemours, Lettre à la Chambre du Commerce.

[70] A. N. F 12 1498 A, An 3 Espercieux; An 8 Moitte; 1559, An 5, Mayeuvre; 2442, An 10, Michaut.
[71] Idem.
[72] Keele, The Wedgwood Manuscripts, Willm. Sturgeon to Mr. Byerley, 13 June 1787, Rouen, 6216-8. '...the Information that you wish respecting the entries at this port'.
[73] Sée, 'The Normandy Chamber of Commerce', passim. Also Simon Clicquot de Blervache, Considérations sur le traité de commerce, passim.
[74] François Crouzet, 'The sources of England's wealth: some French views in the eighteenth century', in P.L. Cottrell and D.H. Aldcroft (eds) Shipping, Trade and Commerce. Essays in memory of Ralph Davis (Leicester, 1981), p. 65.
[75] Keele, The Wedgwood Manuscripts, Willm. Sturgeon to Mr. Byerley, 13 June 1787, Rouen, 6216-8; to Mr. Wedgwood, Etruria, Staffordshire, 10 January, 1788, 15592-57.
[76] Ibid., 13 June 1787, 6216-8.
[77] Léon Cahen, 'Une Nouvelle Interprétation du Traité de 1786-87' in Revue Historique, CLXXXV (1939), p. 278.
[78] Keele, The Wedgwood Manuscripts, 23204-31, abstract of a letter from Messrs. H. Sykes & Co., Bordeaux, dated 24 November 1787.
[79] Idem.
[80] Idem.
[81] Idem.
[82] Peter Francis, 'Irish Creamware: The Downshire Pottery in Belfast', in English Ceramic Circle Transactions vol. 15, Part 3 (1995), p. 402.
[83] Llewellynn Jewitt, The Ceramic Art of Great Britain (New York, 1883), p. 599.
[84] F. William Torrington (ed.) House of Lords Sessional Papers, 1781-2 to 1786 (New York, 1975), pp. 104, 147, 148.
[85] Francis, 'Irish Creamware', p. 402.
[86] Wedgwood, An Address, passim.
[87] Torrington, House of Lords Sessional Papers, pp. 104, 147, 148.
[88] Idem.
[89] A. D. Seine-Inférieure, C 1092, Observations préliminaires.
[90] Idem. A 'vingtiemè' was a direct tax imposed by the Crown. It replaced the 'dixième' in 1749. All industrial or commercial premises had to pay this. Published by the Archives Nationales, La France de 1789 D'Après les Cahiers de Doléances (Paris, 1978), p. xi.
[91] A. D. Seine-Inférieure, C 1092, Observations.
[92] Jones Ford Bell Library, University of Minnesota. 'Opinions of the Representatives of Commerce on the subject of the disadvantage that commerce and the factories within the Kingdom are experiencing because of the treaty concluded between France and England and on the appropriate means of remedying it'.
[93] Idem.
[94] Idem.
[95] Procès verbal, assembée provinciale, Haute Normandie, 1787, in P. Renouvin, Les Assemblées provinciales de 1787 (Paris, 1921), pp. 222-223.
[96] Idem.
[97] Idem.
[98] Eleutherian, W 2 3 4 0 106, February 1788, Du Pont de Nemours, Lettre à la Chambre de Commerce.

[99] Ibid., 2 February 1788, Paris, Du Pont de Nemours to Louis Edoucher, Rouen.
[100] Ibid., February 1788. 'Letter to the Normandy Chamber of Commerce in relation to the Mémoire that it has published relating to the Treaty of Commerce with England'.
[101] Idem.
[102] Idem.
[103] Idem.
[104] Stephen Conway, The War of American Independence 1775-1783 (London, 1995), pp. 241-242.
[105] Eleutherian, W 2 340 106, February 1788. 'The pottery and fine earthenwares of France cannot avoid a considerable disadvantage; the low price of coal allows the English to produce articles twenty five per cent below those manufactured in France. The Queensware factories in Rouen still manage to hold on to the outlet and the favour that they have enjoyed for some time in our Colonies'.
[106] Ibid., 'they will not be able to sustain it (the competition) with regard to domestic consumption within the Kingdom'.
[107] Ibid., 'deprived of an outlet necessary for the maintenance of prosperity'.
[108] A N A D X 142, Arrêt du Conseil du mars 1787, Article 9, Caisse de Commerce.
[109] A. N. Ba 8, 1. 24, pièce 19, Lettre addressée par un Breton à Necker, 3 janvier 1789, cited in Archives Nationales, La France de 1789 D'Après les Cahiers de Doléances (Paris, 1978), p. 31, no. 112. 'The treaty of commerce that France has made with England is a principal cause of the destruction of French commerce'.
[110] Ibid., p. 30, no. 111, A. N. Ba 27, d. 2, pièce 1, Cahier de doléances de la Corporation des Marchands (Drapiers, Merciers et Quincailliers) de la ville de Caen, 8 mars 1789. 'To request vigorously the termination of the treaty of commerce with England'.
[111] These included Hellot, Trudaine, Holker and Trudaine de Montigny.
[112] J.R. Harris, Industrial Espionage and Technology Transfer. Britain and France in the Eighteenth Century (Aldershot, 1998), p. 591, note 17. Hellot directed Jars.
[113] Idem. Trudaine backed Holker.
[114] Bibliothèque Mazarine, Ms. 2 840, John Holker, Report on how to multiply and improve factories in France, 1752.
[115] A.N. F 12 657 f 91, 26 January 1776, mémoire de Monseigneur de Montigny.
[116] Idem.
[117] Idem.
[118] Harris, Industrial Espionage and Technology Transfer, pp. 210, 211, 225, 330.
[119] Ibid., pp. 225, 227.
[120] Pierre Deyon and Philippe Guignet, 'The Royal Manufactures and Economic and Technological Progress in France before the Industrial Revolution', in Journal of European Economic History, 9 (1980), p. 629. Also A.N. F 12 91 fo 497 and A.N. F12 1497, 21 September 1776, Observations des Maîtres Gardes on the nature of a manufacture royale.
[121] Deyon and Guignet, 'Royal Manufactures', pp. 631, 632.
[122] A.N. F 12 1497, 15 May 1775, arrêt du Conseil du Roy, to Clark and Shaw, Montereau.
[123] Pierre Bonnassieux, Le Conseil de Commerce et le Bureau du Commerce, 1700-1791. Inventaire Analytique des procès verbaux (Paris, 1900), passim.

[124] Franc Bacquié, 'Les Inspecteurs des Manufactures sous l'Ancien Régime , 1669-1792, in Mémoires et Documents pour servir à l'Histoire du Commerce et l'Industrie en France (1927), Onzième Série, passim.
[125] These included Jars, the Holkers, Grignan, Faujas de Saint-Fond, de Dietrich and Du Pont de Nemours.
[126] Bacquié, 'Les Inspecteurs des Manufactures'. Also A.N. F 12 1497, 1498.
[127] A.N. F 12 2442, An 10, Michaut.
[128] A.N. F 12 1498A, loi du 12 septembre 1791; loi du 10 Brumaire An 5; décret impérial de Berlin, 21 novembre 1806, le blocus continental; décret de Fontainebleau, 13 octobre 1807; décret de Milan, 23 novembre 1807.
[129] Felix Markham, 'The Napoleonic Adventure', in The New Cambridge Modern History (Cambridge, 1965), I X, p. 326. The Trianon Decree granted a licence to import specific and limited English manufactured goods.
[130] D'Allarde Decrees, 2-17 March 1791, abolished the guilds and corporations of masters.
[131] The factory inspectorate was disbanded in 1792 and the Council for Trade in 1791.
[132] A.N. F 12 2442, An 3, 'commissaires experts' investigated factories and manufacturers. Besson and Darcet are examples.
[133] A.N. F 12 1012, 5 Vendémiaire An 9, arrêté des consuls.
[134] A.N. F 12 1559, Ollivier.
[135] Ibid., An 12, Oppenheim.
[136] A.-J. Tudesq et J. Rudel, 1789-1848, (Paris, 1968), pp. 53, 54, 147.
[137] Ibid., p. 53.
[138] Ibid., pp. 156, 159, 169.
[139] Ibid., pp. 158, 159.
[140] Ibid., p. 169.
[141] Ibid., pp. 158, 159.
[142] A. N. F 12 1559, Ventôse An 5, Jean Louis Briansiaux au Gouvernement, au Ministre de la Marine et à ses concitoyens, paginated, p. 7.
[143] Ibid., p. 4.
[144] Ibid., p. 5. Also 1498 A, An 3, Espercieux, pottery manufacturer in Paris. .
[145] A. N. F 12 1559, An 9, Neufchâteau, report on loans.
[146] Ibid., 1802, Delavigne, Rouen, fabrique de poteries imitant les poteries anglaises d'une grande perfection. 'A factory imitating English pottery to a high degree of perfection'. Delavigne obtained a loan for 40 000 francs.
[147] Décret 2-17 March 1791.
[148] Décret 14 June 1791. The fine for instigation was 500 livres and the fine for threatening behaviour was 1000 livres. Georges Dupeux, French Society 1789-1970 (Paris, 1972), p. 93.
[149] Loi du 18 Messidor An 9.
[150] Tudesq et Rudel, 1789-1848, p. 53.
[151] Henri Sée, 'Histoire Economique de la France', in First Conference Economic History (Stockholm, 1960), p. 86. Each hectare was 2.7 acres.
[152] A. N. F 12 1498 A, An 3, loi du 11 Frimaire. Also Marc Bouloiseau, The Jacobin Republic (Paris, 1972), p.186.
[153] Idem.
[154] A. N. F 12 1498 A, An 3.
[155] A. N. F 12 2442, 1810, Dumuys.
[156] Idem.

[157] A. N. F 12 1559, An 9, Neufchâteau, Report on the Difficulty of having government loans to Manufacturers repaid.
[158] A. N. F 12 1498 B , January 1793, William Sturgeon to the Département des Contributions publiques.
[159] Tudesq et Rudel, 1789-1848, pp. 10, 22.
[160] Conway, The War of American Independence , pp. 241, 242. Conway talks of 3 315.1 million livres (about £143.5 million). This loan required interest per year of 165.4 million livres (about £7.16 million).
[161] Claude-Anne Lopez, Mon Cher Papa. Franklin and the Ladies of Paris (New Haven, 1966), p. 128.
[162] A. N. F 12 1559, An 5, Briansiaux (Jean-Louis), mémoire, Droits du Citoyen.
[163] A. N. F 12 1498 B, 1793, Sturgeon, Department of Public Contributions. This dealt with hardship cases among manufacturers. Sturgeon had applied for 2000 livres but received nothing.
[164]Ibid., January 1793, Sturgeon.
[165] A. N. F 12 1559, Montaran.
[166] A. N. F 12 1497, 21 September 1776, Observations des Maîtres Gardes to the Intendant of Trade.
[167] A. N. F 12 1559, An 6, Neufchâteau. Also Denis Woronoff, La République bourgeoise (Paris, 1972), p. 116.
[168] Idem.
[169] Idem.
[170] A. N. F 12 1559, An 12, Oppenheim.
[171] Idem.
[172] A. N. F 12 1559, An 5 till 1811, Neufchâteau.
[173] National Politics Web Guide, lego70.tripod.com/fran/francois_neufch.htm-4k. François de Neufchâteau. (30/04/02).
[174] Website Ministère de l'intérieur – L'époque de la Révolution (1789-1799) http://www.interieur.gouv.fr/rubriques/c/c2_le_ministere/c24_histoire/Histoire_revolution (30/04/02).
[175] Woronoff, La République bourgeoise, pp. 115-130.
[176] Ibid., p. 116.
[177] A. N. F 12 1559, Neufchâteau.
[178] Ibid., An 5, Mayeuvre; 1498 A; An 3, Espercieux, An 8 Moitte.
[179] A. N. F 12 2442, An 10, Bureau consultatif to Michaut.
[180] Ibid., Michaut to the Minister of the Interior.
[181] Idem.
[182] Ibid., 9 Fructidor An 5, Neufchâteau, circular.
[183] The Factory Inspectorate had been disbanded in 1792.
[184] A. N. F 12 1559, 9 Fructidor An 5, Neufchâteau, circular.
[185] Idem.
[186] Idem.
[187] Idem. 'Agriculture and industry are going to take off and at last have an input of new developments'.
[188] Ibid., 1802, Neufchâteau, mémoire.
[189] Ibid., 9 Fructidor An 5, Neufchâteau, circular.
[190] Ibid., 27 Fructidor An 6, Neufchâteau, circular.
[191] Woronoff, La République bourgeoise, p.116.
[192] Idem.
[193] Idem.

[194] Idem.
[195] Alexandre Brongniart, Traité des Arts Céramiques ou des Poteries (Paris, 1877), 2, p. 224. Peat was an acceptable fuel on the continent for the firing of pottery kilns. Brongniart states that a porcelan factory in Berlin used peat till shortly before 1844.
[196] A. N. F 12 1559, Picquet on Chamberlain.
[197] Ibid.
[198] Woronoff, La République bourgeoise, p.116.
[199] Idem.
[200] Idem.
[201] Idem.
[202] Dupeux, French Society, p.92, referring to the D'Allarde Decrees.
[203] Ibid., p.93, referring to the Loi Le Chapelier.
[204] A. N. F 12, 1802, Neufchâteau, mémoire.
[205] Idem.
[206] A. N. F 12 2442, 1810, Dumuys, La Charité.
[207] Idem.
[208] Idem.
[209] A. N. F 12 1498 B, An 3, Houzé.
[210] A. N. F 12 1559, 1802, Neufchâteau, mémoire.
[211] Idem. '...to enjoy in France the blandishments of a free regime and a temperate climate'. He was referring to the Treaty of Amiens.
[212] A. N. F 12 1559, Nivôse An 9, Neufchâteau, Report on the difficulties involved in the repayment of loans made to manufacturers.
[213] Ibid., 1802, Delavigne, Rouen, fabrique de poteries imitant les poteries anglaises d'une grande perfection. 'A factory imitating English pottery to a high degree of perfection'. Delavigne obtained a loan for 40 000 francs.
[214] Idem.
[215] A. N. F 12 1559, Nivôse An 9, Neufchâteau, Report on the Difficulty of having loans to Manufacturers repaid.
[216] Idem. Also Bouloiseau, TheJacobin Republic, p.142.
[217] Idem.
[218] Idem.
[219] A. N. F 12 1559, Nivôse An 9, Neufchâteau.
[220] Idem.
[221] A. N. F 12 1559; 2442.
[222] Ibid., July 1810, Montaran.
[223] A. N. F 12 1559, Nivôse An 9, Citoyen François de Neufchâteau, Report on the Difficulty of having government loans to Manufacturers repaid.
[224] Idem.
[225] Idem.
[226] Ibid., 1803, Leuillier.
[227] Bouloiseau, The Jacobin Republic, pp. 141-142.
[228] A. N. F 12 1559, Nivôse An 9, Neufchâteau.
[229] Ibid., January 1808, Ollivier.
[230] Idem.
[231] Idem.
[232] Brongniart, Traité, 2, p. 33. Brongniart refers to Ollivier's pottery in the Faubourg St.-Antoine in Paris and to his high-fired wares.
[233] A. N. F 12 1559, January 1808, Ollivier.

[234] Idem.
[235] Idem. The Paillards or Paillarts eventually bought the Chantilly premises from Christopher Potter.
[236] Idem.
[237] Idem.
[238] Idem.
[239] Ibid., 1807, Report from the Minister of the Interior to Napoleon. The debts to the Public Treasury are discussed together with the problems that the manufacturers faced.
[240] Ibid., An 9, Neufchâteau, Minister of Finance, Report on the Difficulty of having loans to Manufacturers repaid.
[241] Idem.
[242] Idem.
[243] Idem.
[244] Ibid., 1802, Neufchâteau, mémoire.
[245] Idem. 'Methods of encouragement that the Government will lose no time in disseminating to trade, manufacturing and the arts as soon as the general and definitive peace allows it to devote some part of the public revenue to making our annual output grow'.
[246] A. N. F 12 1559, 1802, Neufchâteau, mémoire.
[247] Idem.
[248] Idem.
[249] Ibid., 9 Fructidor An 5, Neufchâteau, circular.
[250] Ibid., 1802, Neufchâteau, mémoire. 'The positive assurance and the special protection of the Government'.
[251] Idem.
[252] A. N. F 12 1498 B, 1 Nivôse, Houzé.
[253] A. N. F 12 1498 A, An 8, Jean Louis Michel.
[254] A. N. F 12 1559, 1802, Neufchâteau, mémoire.
[255] Idem.
[256] Idem. '...the intense desire to create goods that are perfected in every way'.
[257] Idem.
[258] Ibid., 1809, Montaran to Napoleon.
[259] Ibid., 1809, Neufchâteau to Montaran. 'The manufacturers are ruined'
[260] Ibid., 1807, Montaran to Napoleon, Finckenstein.
[261] Ibid., 1807, Napoleon to Montaran, Finckenstein.
[262] Ibid., 1809, Montaran to Neufchâteau. 'His Majesty wanted to give the working class work'.
[263] Ibid. 1807, Imperial Decrees, loans to industry.
[264] Idem.
[265] Idem.
[266] Ibid., 1809, Montaran to Napoleon.
[267] Idem.
[268] Ibid., 4 July 1808, Montaran to Napoleon.
[269] Idem.
[270] Ibid., Decree of 18 July 1808.
[271] Idem. 'Belgian smugglers'.
[272] Ibid., 1808, Montaran to Napoleon.
[273] Idem.
[274] Ibid., 4 January, 1810.

[275] Idem.
[276] Ibid., 1810, Montaran to Napoleon; June 1810 to the Minister of the Interior.
[277] Ibid., July 1810, Montaran to Napoleon.
[278] Idem.
[279] Ibid., 1811, Montaran to Napoleon.
[280] Idem.
[281] Ibid., 30 April 1812, Report on Smuggling.
[282] Crouzet, 'The sources of England's wealth', p. 61.
[283] Idem.
[284] Ibid., p. 64.
[285] Ibid., p. 65.
[286] Ibid., p. 69, referring to the marquis de Biencourt.
[287] Ibid., p. 71, quoting from A. N. A M B 7, 499, 1699, 'Observations sur l'inégalité'.
[288] Idem. Quoting from A E M D A, 68, 1718, 'Sur le commerce d'Angleterrre'.
[289] Idem. Referring to Voltaire, Lettres philosophiques (Paris, 1964), p. 64.
[290] Crouzet, 'The sources of England's Wealth', p. 71.
[291] Lawrence Stone, Jeanne C. Fawtier Stone, An Open Elite? England 1540-1880 (Oxford, 1984), p. 420.
[292] Ibid., p. 423.
[293] Ibid., p. 233, quoting S. Foote, The Genuine Memoirs of the Life of Sir John Dinely Goodere, Bart. (London, 1741), p. 6.
[294] Stones, An Open Elite?, p. 403.
[295] Crouzet, 'The sources of England's wealth', p. 64.
[296] Tom Kemp, Economic Forces in French History (London, 1971), p. 65, note 10. Imports stood at 611 million livres in 1787 and exports at 542 livres.
[297] Neil McKendrick, John Brewer, J. H. Plumb, The Birth of a Consumer Society. The Commercialization of Eighteenth-Century England (Bloomington, 1985), passim.
[298] Ibid., pp. 21, 23, D. E. C. Eversley, 'The Home Market and Home Demand, 1750-1780', in Land Labour and Population in the Industrial Revolution (London,1967), E. L. Jones and A. H. John, (eds), n.p.
[299] Ibid., p. 29.
[300] Ibid., pp. 29-30.
[301] Ibid., p. 31.
[302] Crouzet, 'The sources of England's wealth', p. 64.
[303] Ibid., p. 65.
[304] Idem.
[305] Ibid., p. 68.
[306] Ibid., p. 69. Quoting A. E. M. D. A., 74, Mémoire sur l'Angleterre, 1784, marquis de Biencourt.
[307] Idem.
[308] Idem.
[309] A. N. F 12 1559, Jousselin; 1789-Year 6, Briansiaux.
[310] A. N. F 12 1498 A, An 7, Moitte.
[311] A. N. F 12 1498 B, 1 Nivôse An 3, Houzé, report to the Minister of the Interior; A. N. F 12 1559, An 5, report.
[312] A. N. F 12 1498 B, Houzé.
[313] Idem.
[314] A. N. F 1559, An 5, Mayeuvre, report.

[315] Idem.
[316] Ibid., An 3, Besson and Darcet, report on Christopher Potter. The inspectors were suspicious when they observed quantities of English Queensware stacked around his factory premises. Potter claimed that he used the English pots as models for his own production. The two government officials were reassured when they witnessed Queensware being unloaded from Potter's kiln.
[317] Correspondence, 20 May 1987, Christopher John Smith, Stourbridge, to Jacqueline Bonnet, Paris.
[318] Correspondence, 4 April 1987, Jacqueline Bonnet to Christopher John Smith.
[319] Tudesq et Rudel, 1789-1848, p. 221, illustration entitled: 'Exposition des produits de l'industrie française'. A note adds: 'Sous le Consulat, cette exposition se tenait dans la cour du Louvre', 'During the Consulate this exhibition was held in the courtyard in front of the Louvre'.
[320] A. N. F 12 1559, An 6, Bureau consultatif, Report on Smuggling.
[321] A. N. F 12 1498 A, loi du 12 septembre 1791, loi du 10 Brumaire An 5.
[322] A. N. F 12 1559, An 6, Bureau consultatif, Report on Smuggling.
[323] A. N. F 12 2442, An 10, Michaut to the Minister of the Interior, Report on the English threat to the Pottery Industry since 1780.
[324] Imperial Decrees of 27 March, 11 May 1807.
[325] 18 July 1808, 4 January 1810.
[326] A.N. F 12 2442, An 10, Michaut.
[327] Published on 27January 1807, by T. Tegg of Cheapside, private collection.
[328] Idem.
[329] Correspondence with Rodney Hampson, October 2000 till September 2001. This issue has been debated on many occasions.
[330] A.N. F 12 2442, An 10, Michaut.
[331] A. N. F 12 1559, 10 July 1806, Jousselin to the Minister of the Interior, Essays on the General Improvement in Pottery.
[332] Felix Markham, 'The Napoleonic Adventure', p. 326. The Trianon Decree granted a licence to import English manufactured goods. The Berlin Decrees set up the continental blockade in 1807.
[333] Ibid., p. 327. The Milan Decrees were passed in October 1807.
[334] Ibid., The Fontainebleau Decree of December 1807. Any neutral ship possessing a licence from an English port was to be regarded as English.
[335] Ibid., p. 328, Fontainebleau Decree of October 1810.
[336] A. N. F 12 1559, 30 April 1812, report on Smuggling.

Chapter 6

Potters in France and the Transfer of Technology.

6.1 Introduction.

The theme of this chapter is about the presence of English potters in France and their contribution to the French pottery industry. The pottery manufacturers in France remained ambivalent in their attitude towards their English rivals. On the one hand, they were to be castigated for their 'sharp practice' and underhand means of effectively penetrating French borders and French markets. On the other hand, they were skilful technicians and technocrats whose techniques and technological skills were worthy of imitation.

Transfer printing was a fast and cost-effective way of decorating pottery that had been in use for some years in England. It had speeded up the process of decoration and had moved aspects of pottery manufacture towards mass production. Costs had been stabilised and reduced and the market widened to encompass the lower strata of society. Mocha was a simple but effective process of manual decoration that complemented transfer-printing. Together they helped ease the French pottery industry into a consumer-driven mode where customer demand drove production.

The public stance of the Government remained optimistic about the future of French industry. This had to become more dynamic, adaptable and competitive. The Government organised national industrial exhibitions where medals for excellence could be won.[1] The interest in the transfer of English technology

swung back into focus in the 1790s and between 1800 and 1810. English entrepreneurs in France won gold medals, took out patents and were generally successful.[2]

The transfer of English technology once more interested the authorities. Expert English workers and managers in France were reviewed and investigated.[3] Lengthy reports were drafted by inspectors and delivered to the Government on English entrepreneurs and their industrial enterprises in France.[4]

There were several Englishmen running factories on their own account in France at this time. This was particularly true of the pottery industry.[5] English managers like the Leighs, Shaw and the Clarks were not alone in bringing English pottery technology to France in the eighteenth century. Some Englishmen had been in France prior to the Revolution.[6] Others had immigrated to find new opportunities in the 1790s. There had, however, been outbursts of anti-French feeling in major English cities like Birmingham. In 1791, on the anniversary of the Revolution, riots had taken place and damage had been done to private property in this city.[7]

There were Englishmen who were interested in what was happening in France. Political sympathies probably motivated some artisans and entrepreneurs to go to France. Though relatively few in number some of these English technocrats effected changes in the French pottery industry.[8] This is documented by the patents that these Englishmen and their French partners took out with the Institut national de la Propriété industrielle in Paris.[9] In English terms, these patents were not new. They were, however, new to France and as such were valid additions to French technological history.[10]

The pottery industry got very little tangible help from the French Government after the Revolution. After a shaky start that had more to do with the effects of the Treaty of Commerce of 1786-7 and the years that had preceded it than the actual events of 1789, some potters began to look seriously at the defects within their own industry. They made efforts to remedy these and to manufacture a better product. They continued to manufacture English Queensware.[11]

Not every manufacturer was destroyed by competition from English smuggled goods. The production of pottery had a very low priority in comparison to the manufacture of items like metal buttons that were needed for uniforms. Nonetheless, the French pottery industry continued to produce goods and offer employment and business investment. There were claims made by pottery manufacturers that in the Paris region, for example, potters could not produce enough goods to satisfy local demand. The assertion was that they brought in Queensware manufactured elsewhere to fill out their own production.[12]

This happened in the pottery industry in England when a manufacturer bought in supplies from other factories and sold them with his own wares. Like many others, Josiah Wedgwood had done this. As has been noted, he was asked by his French agent in 1787, when English imports to France were legal, to stop this practice as the customers had complained.[13] The intention was not generally to deceive but to meet market demands and commitments. In France, when the item in question was an imitation of a foreign product, the possibilities for fraudulent substitution should not be dismissed.

The production of English pottery in France endured beyond 1800. One telling aspect of the whole issue lies in the calibre of the English potters and

entrepreneurs involved. The French regularly used the generic term 'Wedgwood' to identify this English pottery.[14] This name epitomised quality and included wares produced by other English manufacturers. Most of the English pottery that reached French markets would have come from English potbanks, ordinary earthenware that was acceptable in quality and far cheaper than Wedgwood ware. Its name detracted from its utility and cheapness.

A further essential ingredient in this industrial recipe for success was the fact that English entrepreneurs brought English technical expertise in the decoration of pottery to the French industry. They or their French partners registered patents and added improvements in order to obtain further patent certificates.[15] This technological input brought innovation to the French industry. New methods speeded up French production and simplified certain basic processes in the surface decoration of pots. It moved the industry on from the slower, hand-painted phase to the faster mode of transfer printing. These were the first steps in mass production in the French pottery industry.

Better surface decoration distracted the eye from the imperfections of a piece, however slight they might be. This meant that less than perfect goods could be disguised to achieve a greater semblance of quality. Prices would also be better if the piece looked better. Any plain, unadorned ware had to be of unblemished quality to obtain a good price in an increasingly discerning market place.[16] English imported and smuggled goods were synonymous with quality. They were also cheaper than French imitations.[17] French Queensware had to become as good as English Queensware to survive in a consumer market that was evolving as well as becoming more critical.

Consumer patterns within France continued to change and develop even in a war economy. The taste for English goods had spread wider across the consumer spectrum and had encompassed a more comprehensive cross-section of the French population.[18] This was doubtless the result of the modest price of the English product which was readily available in town and village. Queensware was sold everywhere and used even by farmers and country dwellers.[19]

These less affluent citizens also bought property and land.[20] In 1790 a large proportion of a French population of twenty eight millions lived in a rural environment.[21] The perceptions of this peasant class had been heightened by the opening up of society after the Revolution. It had been encouraged to embark on entrepreneurial ventures by buying 'biens nationaux'. This had created new ranks of employers and worker-employers. They could open factories or create farms on the former church or seigniorial lands.[22] They became manufacturers and primary producers. The purchase of state shares made them investors, however small-scale. Their perceptions of their place in society had changed for ever. This is why their consumer patterns also changed.

There is little extant documentation to be found in the English ceramic archives of this period or in the files of manufacturers to substantiate the presence of English pots in France during the revolutionary and Napoleonic wars.[23] It has been suggested that English manufacturers, including Wedgwood engaged in smuggling in the eighteenth century.[24] The evidence is, as yet, not forthcoming. The French, however, continued to assert that there was a considerable quantity of English pottery to be had all over France. A valid argument might be that old

habits die hard. After decades of clandestine operations, entrepreneurs who were surviving in a war economy in England still needed outlets for their wares.

Manufacturers must, therefore, have had some idea where their product was going. Being at war with France put a different legal slant on smuggling. Information, like the routes, became more circuitous and concealed. The dealers and merchants as well as shipping agents also played a part in this infiltration. Comparable covert operations and ambivalent responses from manufacturers exist today in the tobacco debate. Supplies are maintained and increased by means of smuggling in an industry that denies any knowledge or responsibility.

The market potential for French Queensware was wide open. Smuggled English Queensware had already secured the market. Domestic French manufacturers had to exploit this situation and take the lead in English pottery sales from the English.[25] It is this aspect that the Government would stress at a later date when the drive towards self-sufficiency and nationalistic entrepreneurial dynamism dominated government industrial policy.

The push on the part of the Government to encourage the French manufacturer out of the dependent mode applied very much to the pottery industry at this time. The taste for English pottery that had begun in the 1750s and 1760s had remained as strong as ever. It had encouraged the French to concentrate on English products which were carefully and systematically imitated till the end of the Napoleonic era and beyond. This was part of the continuing legacy that the transfer of English technology gave to the French pottery industry.

There was a continued infusion of English manufacturing expertise into French industry after 1789 and during the ensuing regimes. Petitions concerning pottery

were heard before the Assemblée Nationale as early as July 1789.[26] In these public discussions proposals were made by manufacturers to share their discoveries with the nation. They also undertook to train French workers in their new methods of decoration.[27] The need to acquire English technological skills on the part of the Government remained strong even as war and peace altered the fortunes of the French manufacturer. English pottery craftsmen and entrepreneurs continued to arrive in France.

6.2 Perceptions of French manufacturers.

After 1789 there was an increase in the correspondence between the French manufacturers and their government officials. According to the 'mémoires' written by French potters to the Government, their evaluation of the state of their industry can be divided into two overlapping categories. One of these involves the reports that were critical of the Government. They targeted the apparent lack of help and protection from the State in the face of chronic and illegal competition from English pottery in France. Here the manufacturers complained and gave a one-sided and often bleak view of the state of French industry. They were out to attack and attach blame for their predicament.

The other category presents reports that were action plans for the future development of French industry. The critical analysis was directed at their own industry and its inherent defects. They questioned production methods and the calibre of French management. They argued that the French pottery industry had the potential to be competitive and independent. They believed that the English could be beaten by using their own methods and techniques. These reports were more optimistic.

The reports in the industrial files are detailed and informative but not comprehensive. They sometimes provided the Government with information that it did not already have. That is doubtless why these 'mémoires' were retained by French bureaucrats. They were useful guidelines to the development of future policy no matter how flexible and intermittent this may have been on the part of the Government. The element of self-interest is evident in most of the 'mémoires'. They were written by businessmen who wanted to keep their concerns open and profitable. What is common to both categories was the attitude towards the English pottery industry.

Potters in France were aware that the product of their English rivals outsold their wares and made their own pottery look bad. English Queensware was available all over France. Documents composed by French manufacturers were dedicated to the properties and qualities of French pottery.[28] These 'essais' or 'mémoires' were not usually praising the merits of French wares.[29] They were frequently highly critical of their own product. By analysing its defects and attempting to remedy them, these potters wished to establish a place for their industry that was not constantly under threat from English goods.

The most frequent criticism was levied at the lack of quality prevalent in the French pottery of the 1790s and 1800s. Quality would become a long-term issue. Contemporary pottery experts recognised that English goods were handsome and cheap. They were also better made and less dangerous to health because the body had been fired at a much higher temperature and it had been fired twice. Cost-cutting measures employed by some French potters included firing their wares only once and at low temperatures.[30] This rendered the end product

frangible and absorbent, with a tendency to absorb fats through the ill-fitting glaze. These oils in turn reacted when heated with the chemical and mineral properties of the unstable body and glaze. This resulted in surfaces that could be unhealthy and, according to some experts, dangerous to the user.[31] Master potters like Jousselin and Ollivier[32] made this clear and offered possible solutions to the problem. Firing at a higher temperature was one of the solutions.

Jousselin also advocated that rigorous English methods of procedure and cleanliness be adopted when working with clay.[33] Part of his 'mémoire' is reminiscent of the report written by Gabriel Jars in 1765 on the manufacture of salt-glaze stoneware in Newcastle.[34] They had both observed English pottery production methods at first hand. Ollivier believed that pottery was such a useful and widespread product that it deserved to be a national product.[35] He took this a step further by suggesting that English wares such as creamware be produced at Sèvres instead of porcelain.[36]

The institution at Sèvres had become the national centre for ceramic research and after 1800 was managed by Alexandre Brongniart.[37] Ollivier argued that the manufacture of creamware was more in keeping with the needs of the nation.[38] At a later period Brongniart did encourage ceramic research on the qualities and properties of creamware.[39] At one point he allowed the ceramist, Boudon de Saint-Amans to use the facilities at Sèvres to develop a prize-winning creamware body.[40] Boudon failed, however, to produce this ware in quantity for commercial purposes.[41]

For French potters, as for other entrepreneurs, the Government had provided opportunities to expand and develop their industry by offering large numbers of

buildings and estates for sale. This has already been mentioned. The exploitation of these 'domaines nationaux' or 'biens nationaux' was supposed to encourage the enterprising entrepreneur to make patriotic efforts to supply what the nation needed.[42] For the French manufacturer, however, the purchase of a 'bien national' was problematic on a variety of levels. Finding the right kind of workers was fundamental to any industrial development. The war had forced entrepreneurs to rely on a less skilled or even untrained workforce.[43]

Competition from English smuggled goods as well as personal inexperience in industrial matters also caused many potters to fail. When they appealed to the Government for help they met a negative response because their concerns were not producing new or unique products.[44] Very few met the other government criterion of being worthy of development ('vu en grand') if their product was found to be useful to the nation.[45] When they petitioned the Minister of the Interior potters were told that the Government had done much for them already by banning English goods.[46] They were also told that since France had been at war with England from 1793 onwards, this was another advantage for the French manufacturer. Theoretically, English goods should not be able to reach the French consumer. The domestic market was waiting to be supplied by domestic goods.[47]

These, according to ministerial documents, were the standard replies from the Government and were all that the French manufacturer could hope for on the part of the State. Additional advantages were also pointed out, namely that the corporations and regulations of the Ancien Régime had been abolished and new premises and estates had been made available for industrial exploitation.[48]

The industrial and trade exhibitions that the Government had organised on a national level had shown that not all French potters were badly hit by the steady flow of English goods into France. Perhaps the frequency and intensity of the complaints and criticisms in the extant archival documents present an unbalanced view of the state of the pottery industry in France. It might also be that manufacturers who had never before aired their views now exploited their democratic freedom by addressing their Government and taking it to task. Far fewer verbal liberties are perceptible in the later 'mémoires' addressed to Napoleon. The adulation might have been genuine.

The products of some manufactories enabled them to compete more effectively.[49] The presence of English pottery did not disrupt their sales. Some potters probably exploited the situation and passed English pottery off as their own[50] and this is why archaeological finds are wrongly attributed today.[51] The French Government, however, was aware that the French manufacturer did need incentives and encouragement.

As has been mentioned, the industrial files on pottery after the Revolution continued to reflect the same preoccupations as before it. The problem of smuggled English pottery and English culpability for the ills of the Treaty of Commerce figured frequently. French potters declaimed in the Assemblée Nationale about the predations of the English manufacturers.[52] They demanded that the threat of English competition be eradicated by the renewed imposition of import bans.[53]

After the Revolution the industrial policy of the French Government with regard to English imports remained the same. The aim was still to beat the English using

English methods. This policy of emulating the English was indicated in 1789.[54] An English pottery manufacturer, Edward Chamberlain, petitioned the Government for financial aid to help him develop a number of manufacturing and industrial concerns. Chamberlain stated that the techniques he employed were English and could be useful to French industry. He was investigated by a government official, Picquet. This inspector reported that Chamberlain was a useful entrepreneur who specialised in firing faïence with coal and peat. His skill was such that the peat behaved almost as predictably as coal and the firings were successful. The peat had the added advantage of providing mineral fertilizer in the residual ash.

Besides pottery, Chamberlain manufactured soap, alum and sulphuric acid. His business concerns were in Honfleur. Picquet was interested in the coal-fired kilns employed by Chamberlain and reported that this Englishman could be of service to the State.[55] He did, however, suggest that other French experts should observe this entrepreneur before any government measures of support were shown.[56] Chamberlain remained in France and was involved in several industrial ventures in Normandy. In 1810 he was the proprietor of a vitriol factory at Honfleur which he rented to French entrepreneurs.[57] The interest in English technology and methods continued.

Increasingly the impetus to emulate the English pottery industry came from 'mémoires' written by potters to the Government. These documents took the form of petitions, outspoken critiques, policy outlines, suggested innovations and general information about the pottery industry. This correspondence with the various ministries gave free rein for individual manufacturers to expound and propose theoretical solutions to industrial problems. It does reveal to some extent

how the potters in France perceived their situation and that of French industry as a whole.

In a document entitled 'Essai sur les moyens de rendre nos manufactures supérieures à celles d'Angleterre', a manufacturer named Espercieux argued that French potters would not survive if they did not make the concerted effort to imitate English pottery.[58] Writing in Year 3 of the Republic, Espercieux recalled the years before the Revolution.[59] The Treaty of Commerce had affected many potters after English creamware had come into France legally. His verdict was that the French imitation pottery would never compete effectively with the English product unless French potters used English principles of manufacture.[60]

In Year 6 of the Republic, Espercieux sent another report to the Minister of the Interior entitled 'Pour rendre nos manufactures supérieures à celles d'Angleterre'.[61] The wording and tone of this report were forthright. Again he stressed the need for English methods of working, 'les principes qui guident la manufacture anglaise'.[62] Espercieux proposed that English workers be recruited to bring an English way of working into French pottery workshops. He also suggested that the Government appoint pottery inspectors. The job of these officials would be to inspect the quality of the English pottery produced in France with a view to introducing improvements where necessary.[63] The Government noted his suggestions but indicated that it did not support his views on the creation of a pottery inspectorate.

Other proposals also reached government departments, usually the Ministry of the Interior. In Year 5, a 'mémoire' was sent to the Minister of the Interior, Neufchâteau. This time the author, a manufacturer named Mayeuvre, expressed

concern at the poor standard of education among the French workforce. He had seen how things worked in an English manufactory. He argued that there were lessons to be learnt from the English. As a manufacturer he wanted to see the standard of French products improve. Mayeuvre suggested to the Government that Central Schools for instruction in English technical training should be set up in different areas in France.[64] He believed that these Technical Schools were the only way forward for French workers and craftsmen.

Mayeuvre also pointed out that the French consumer still preferred English goods even when they constituted illegal purchases. The law of 10 Brumaire Year 5, had not been effective in keeping English goods out of France. The Convention might have banned English wares but English skills in smuggling were flouting this law. Mayeuvre claimed that smuggled English goods were being sold in French shops as French products. This, he argued, was an insult to the French manufacturer. He suggested that there should be spot checks in the premises of French manufacturers and retailers and that any contraband goods found should be confiscated.

Mayeuvre insisted that the Government find effective ways of keeping smuggled English goods out of France. A start could be made by preventing them from coming through satellite countries. As a French manufacturer, Mayeuvre expected the Government to support the development of useful branches of industry. He argued that this was surely a fundamental industrial policy.[65]

It took some time for Neufchâteau to answer Mayeuvre's suggestions.[66] In a defensive letter he explained that the Government could not force the Allies of France to ban English goods. He also pointed out that the Government could not

legislate to control consumer choice. This was influenced by the price and quality of the product as well as by the taste of the customer.[67] This indicated that the Government was aware that the domestic French products were not entirely meeting consumer demands.

Neufchâteau did not pass judgment on the French consumer and his apparent lack of patriotism in buying banned English goods. He simply stated basic marketing facts. This was why he stressed quality to his prefects and regional cohorts. Neufchâteau continued to collect statistical information on French industry.[68] His public stance remained true to the government expression of patriotic, national optimism.

By Year 8, Montaran was Minister of the Interior. He, too, received many reports from French manufacturers who offered advice or admonition in critical documents. Moitte, a pottery manufacturer with large premises and a sizeable workforce in Clignancourt, Paris, also tried to make the Minister aware of the national significance of pottery.[69] He, like most of his fellow potters, accepted that 'anglomanie' was a fact of French industrial life. His argument was that the consumer demand for English Queensware should be used to the nation's benefit.

His suggestion was that the Government should make its manufacture a national priority and a national industry. According to Moitte, the national centre for ceramics at Sèvres possessed the correct environment where tests and trials on English creamware could be made. In this way the French version of the English pottery could be perfected and its secret disseminated to the nation's potters. The demand for porcelain had decreased so the technocrats and scientists at Sèvres had the time and the facilities to work on creamware.[70] Moitte claimed that the

production of Wedgwood's Queensware was subsidised and protected by the English Government.[71] His argument was that French Queensware should be similarly protected.[72]

He asserted that there was such a fashion for English pottery in Paris that factories there could not keep up with demand. Moitte stated that some manufacturers imported creamware from Douai and claimed that they had manufactured it in their factories in Paris. It is therefore a possibility that if they brought in manufactured items from distant parts of France to supplement their output, they also brought in English goods from Belgium and other smuggling entrepôts and sold these as French products.

A potter who shipped in another factory's wares was a manufacturer called Turpin who had premises at Belleville, in Paris. Moitte described Turpin's creamware as being of poor quality but that it had a ready market that Turpin exploited.[73] The Government, according to Moitte, was interested in Turpin's factory and had granted him some kind of protection. Moitte wanted to see this state interest extended to all creamware manufacturers.[74] He argued that an interest in English pottery methods was crucial. The English industry should be the role model for the French pottery industry. The Government did, indeed, fund initiatives to study English industrial methods.[75]

'Mémoires' still reached the Ministry of the Interior and the Bureau des Arts et Manufactures which handled industrial matters. Some potters claimed that the onus of responsibility for French industrial problems should not be placed with the manufacturers alone, even if they made an inferior product.[76] The writer of just such a report, Leuillier, was also a potter who specialised in English wares. He

admitted that poor quality in French pottery encouraged the consumer to buy English goods. This was why smuggling had persisted. The continued demand was there.[77] The views in his report were, he claimed, shared by many potters.

Leuillier was a manufacturer of Queensware in Paris where English goods were to be found in many of the shops. He had experienced difficulties in his business. He reported that he could no longer keep his factory in production and give employment to his workers.[78] Competition from smuggled English goods figured among the list of difficulties that he and many of his fellow potters faced. Leuillier stated that he could not match them in terms of quality or price.

He also criticised the Government in this report in Year 7 for not controlling the high interest on loans which he and many like him had been forced to negotiate in order to survive. In addition, raw materials for his factory were in short supply, in particular coal. He did not say whether he was firing with coal or simply using it in the preparation process. Vital commodities like foodstuffs were also hard to find or were expensive. According to Leuillier, speculation and usury were rife. Unscrupulous speculators were making fortunes out of the misery of others. Leuillier was critical of the Government for allowing this to happen.[79] Some potters blamed everything on the English. This report allocates part of the blame to the Government. It indicates that potters were experiencing manufacturing and financial difficulties that were part of the general economic situation. The English problem subsumed this, however.

In Year 10 a French potter, Michaut, gave his interpretation of English involvement in the plight of the French pottery industry. Michaut himself was a manufacturer of Queensware in Chantilly. This entrepreneur argued that the integrity of his

profession and the value of his industry was being consistently undermined by the English. More to the point, the French Government was doing nothing to prevent this. Indeed, it seemed to be aiding and abetting the English.[80]

Michaut pointed out that there had been a threat to the French pottery industry on the part of the English for decades.[81] He argued that:

> Depuis 1780 les anglais ont tous essayé pour nous égorger des produits de leurs manufactures et fayenceries.[82]

The English had stopped at nothing to destroy the French with their manufactured goods and pottery. Michaut saw this as a deliberate policy on the part of the English.

His plea to the Minister of the Interior was that the Government should not betray the interests of the French potter during the period of peace that was about to start in 1802. This was what had happened in the 1780s when political reasons had stifled economic good sense to the detriment of the pottery industry. He argued that the Treaty of Commerce had been to the advantage of the English. He feared that the peace initiative of 1802 would also be damaging to French manufacturers when considerable quantities of English pottery could once more enter French markets legitimately. Some of the older manufacturers had seen it happen before.[83] Michaut argued that past experience should not be disregarded.

He pointed out to the Minister that by Year 10 there had been a resurgence of potteries making English Queensware in France. Many of these concerns were just beginning to be successful. They needed the protection of the State. Thus, even before the peace negotiations had been finalised, Michaut wanted reassurance about the Government's policy. He was appealing to 'un

Gouvernement paternel et régénérateur' to protect the pottery industry by curbing the quantity of smuggled goods that were still coming into the country.

He stressed that illegal loads of English pottery constituted a threat to the French manufacturer. French shops continued to be filled with English goods. Indeed, Michaut knew that two vessels loaded with English pottery were waiting in the river at Bordeaux at that very moment. He stated that these 'manufactures sont offertes au plus vil prix' in French shops, thereby undercutting similar French merchandise.[84]

Michaut was puzzled by the French Government's attitude towards the whole English question. He categorised its behaviour as contradictory. The Government enunciated a policy of encouragement to industry but continued to do nothing when loads of banned English goods entered the country on a regular basis.[85] This apparent acceptance of an intolerable situation on the part of the Government suggested to Michaut that the French State might be viewed as contributing to the destruction of its own industrial markets. This, surely, was not the public image that the Minister wanted to have. The role of the Government, according to Michaut, should be to protect the French manufacturer.[86]

Michaut claimed that it was common knowledge that the English Government protected the English manufacturer:[87]

> Il est trop connu, M. le Ministre, que le Gouvernement anglois est disposé à faire les plus grandes sacrifices pour écarter toute concurrence des manufactures rivales.[88]

Michaut made it clear to Montaran that the continued importation of 'fayences façon anglaise' represented a real danger to the French manufacturer:

> L'importation des fayences anglaises seraient absolument destructive de toutes les manufactures des fayences façon anglaise établies en France.[89]

Michaut employed 300 workers at his Queensware factory in Chantilly. His main product was 'fayence façon anglaise'. His fear was that when the peace came his trade would be ruined by English Queensware imports and that he would have to close his factory and let his workers go.[90] The threat of English domination was underlined by the ambiguity of the French Government's stance.

On 4 Floréal Year 10, the Minister of the Interior answered Michaut's charges.[91] He denied that there was any complicity or complacency on the part of the Government.[92] It was not pursuing a policy of tacit non-commitment with regard to the illegal entry of English pottery into France.[93] Montaran's reply was vehement:

> C'est sans fondement, sans motif et contre toute vraisemblance que le gouvernement doit tolérer l'importation des fayences anglaises.[94]

He stressed that the French Government was well aware of the valuable role that factories manufacturing English pottery had to play in French industry.[95] It also knew that great advances had been made in the production of this pottery in France. The Government had no desire to undermine this or 'entraver un genre d'industrie qui a fait tant de progrès'.[96] He wanted Michaut to be assured that:

> Le Gouvernement est loin de laisser porter atteintes à votre industrie et à votre zèle.[97]

By assuring him that the Government backed and appreciated the French pottery industry, the Minister of the Interior was answering the criticisms made by Michaut. He did not deny that the situation was complex. He added that he and his

ministerial colleagues understood that smuggled English Queensware had also been a problem between 1780 and 1786.[98] On a final note, Montaran told Michaut that the Director of Customs had been informed and that all possible points of entry would be guarded and a close watch kept for English smuggled goods. This was an exposition of the Government's stance.

On a ministerial and inter-departmental level Montaran was also forthright. On the same day that he wrote to Michaut, the Minister of the Interior drafted a memorandum on this topic for the personal attention of the Directeur général des Douanes nationales.[99] In this document Montaran repeated Michaut's claims that 'les magasins de Paris étaient chargés de fayences anglaises'.[100] He also quoted the law prohibiting English goods, the law of 10 Brumaire Year 5.

Montaran then pointed out that the illegal trade in English pottery should be regarded as a major issue which required the time and attention of the Government. His remark to the Director of Customs: 'Je ne peux pas penser qu'un objet aussi important n'ait pas mérité toute votre attention' reads very much like a departmental reprimand.[101] This involved immediate action about the illegal entry into France of English pottery. It also indicated the level of priority that Montaran expected.

The Minister then outlined the claims that Michaut had made against the Government by repeating the contents of the 'mémoire'. He commented that French manufacturers were 'prey to the most awful rumours' about the attitude of the Government towards the smuggled English pottery. They believed that the Government did not care about their industry and was tacitly involved in its demise. They suspected that this was why English pottery was to be found openly

all over France. Montaran demanded that some positive action be taken to address these misconceptions. As regards the penetration of French markets by illegal English goods, he ordered the Director of Customs to initiate 'la plus grande *surveillance sur ce point*'.[102]

Montaran wanted to regain the confidence of the French manufacturers. This was, after all, the minister who repeatedly petitioned Napoleon for more funds for French industry. It is clear that he was displeased by the inefficiency or laxity of the French Customs service. More to the point, precise information about the smuggling activities had come not from his own officials but from an entrepreneur who was worried about his business. This certainly did not instil confidence in the power of the State to protect its citizens. It also did little to encourage the French manufacturer to be innovative and dynamic in 1802. This was pointless if the English were going to take over the French market as they had done in 1787.

The French potter survived the period of peace and the years of renewed warfare that followed. The issues remained the same and manufacturers continued to communicate with the Government. In 1806 the Minister of the Interior received a 'mémoire' entitled Essais sur le perfectionnement général des Poteries.[103] Jousselin was a manufacturer who ran a creamware establishment in Nevers. The importance of this document lies in the contemporary commentary that Jousselin gave of the changes in French consumer patterns and the reasons why English smuggled goods continued to dominate French markets.

As a practising and successful manufacturer he tried to make the Government understand that pottery was an essential industry for France. He compared the manufacturing situation in England with that in France. His argument was that

Queensware manufacture merited the attention of the authorities in the same way that Wedgwood's pottery was granted government support and protection in England. He suggested that quality was the key to sales and marketing at home and abroad. He pointed out that pottery could become a valuable export commodity for French manufacturers. He also surmised that home markets could be better exploited.[104] Pottery was always needed as a daily commodity. It was useful in trade 'dans la balance générale de commerce des nations'.[105] He saw pottery in a wider role as a valuable part of the French economy.

Jousselin identified pottery as a growth industry. English goods had altered French purchasing patterns. He stated that consumer tastes were widening. He argued that all classes of society were using creamware in 1806. Queensware was no longer only for the more affluent customer. It was cheap and available and country dwellers as well as townspeople were buying this product.[106]

This is a crucial assessment of consumer taste by a contemporary commentator and manufacturer. Jousselin stated that tastes had altered since the Revolution. In 1806 creamware was to be found 'jusque dans les maisons des cultivateurs de nos campagnes'.[107] This statement that peasants were using creamware echoes what travellers and scholars had been saying for decades. English Queensware was to be found everywhere.[108] Jousselin pointed out that it was 'd'un usage universel'.[109]

This potter placed English Queensware in the wider framework of a new and evolving consumerism. The French customer wanted Queensware so the French potter should give them it. This should be with the prompt help of the Government. This was a situation that should be exploited.

Jousselin argued that quality was the key to competition. Once this had been achieved in the production of French Queensware, English smuggled goods would eventually cease to be a threat. There was a ready domestic market because there was 'an infinite number of consumers'.

Jousselin, however, expressed admiration for all English Queensware and in particular for Wedgwood's production. It had outsold French pottery because of its lightness and elegance of shape.[110] It had 'la préférence sur toutes les autres marchandises de ce genre'.[111] Like several other French potters, Jousselin claimed that the English Government subsidised and protected the factories of Wedgwood.[112] He believed that this was because the English recognised its commercial and economic potential. The English Government 'sent calculer les ressources immenses que cette branche de commerce pourrait offrir'.[113] Jousselin wanted the French Government to behave in a similar pro-active manner with regard to French Queensware.

Jousselin was also critical of the standard of French Queensware production. He stated that most French pottery, after brief usage, was stinking and frangible, redolent of cooking smells and unreliable in any change of temperature. This occurred because the body had not been fired at a high enough temperature to ensure that the glaze fit prevented leakage through cracking. An additional problem was that a chemical reaction took place between the properties in the body itself and the fats absorbed from cooking. The biggest hazard came from the use of lead in the glaze. Altogether, the product was a danger to health.[114] English Queensware was fired at a much higher temperature which made the end product less porous and brittle. It was also less dangerous to the user.[115]

Jousselin advocated the use of English methods.[116] As an expert potter, Jousselin stressed the discipline required when handling and preparing clay.[117] Jars had underlined the same rigour and deftness in 1765.[118] Jousselin also mentioned a neglected development in French pottery which he said dated from the time of the duc de Lauraguais in the 1760s.[119] The French Government had not subsidised this entrepreneur.[120] What had been produced was a high-fired earthenware that had many of the properties of porcelain.[121] It had the potential of being superior to Queensware if it were properly developed.[122] It could also prove to be a serious rival to the illegal imports of English goods. Jousselin suggested that the Government consider the development of this alternative whiteware.

French Queensware had to improve in quality to survive.[123] The potters themselves did little to help the situation. Jousselin declared that French manufacturers were reactionary, unadventurous and unwilling to innovate. Many of them were making no effort to accommodate competition or put up a fight for their industry. By imitating English methods of manufacture he believed that the French potter could meet the challenge of manufacturing a French product of quality.[124] What was needed was determination and effort. The pragmatic detail of Jousselin's 'mémoire' underpinned his professionalism and nationalism.

At the other end of the manufacturing spectrum there were potters who petitioned the Government when difficulties overwhelmed them. These were sometimes men who had purchased 'biens nationaux'. Their aim had been to build up a business. Some of these new entrepreneurs often knew nothing about the manufacturing industry that they had chosen. It is likely that there were many instances where ordinary citizens became involved in manufacturing as an

investment or as a means of employment while the 'biens nationaux' were being promoted by the Government. Some chose a craft without having had any managerial experience or technical training. They relied on the manufacturing expertise of the staff that they employed. In a war economy this was a risky business as many skilled workers had been conscripted.

An instance where an ordinary citizen had purchased a 'bien national' with the aim of turning it into a pottery manufacture occurred in La Charité-sur-Loire near Nevers in Nièvre. The entrepreneur, Dumuys, was a retired cavalry officer who had been invalided out of the French army.[125] He knew nothing about pottery manufacture but had bought the former 'abbé des Bénédictines' in La Charité which he intended to turn into a factory.[126]

He employed unskilled workers who may not even have been experienced in pottery production.[127] Here was an instance where conscription had left a manufacturer at a disadvantage with regard to the choice of his workforce. Another Queensware manufacturer in Douai informed the Minister of the Interior at an earlier date that he and his partners were employing children, old people, women, cripples, war veterans and invalids as well as some of the local poor.[128] Most of their workers were in the army at this time.[129]

Dumuys had spent 22 000 francs on tools and moulds alone. The premises had cost him 81 200 francs and had left him bankrupt.[130] He appealed to the Government for help. He complained that he had been let down by his workforce. Although he had lost everything, he was still being pressed to repay the loan that he had contracted with the Government for the initial purchase of the abbey.[131] The industrial files do contain many critical 'mémoires' of the situation in the

French pottery industry after the Revolution. There were, however, success stories which substantiated the validity of the transfer of English technology to France.

The problem of English goods coming into France illegally continued after the Peace of Amiens when war was resumed between France and England.[132] From this period onwards till 1814 French manufacturers focused on 'la perfidie britannique'.[133] The French continued to regard the English and their expertise in smuggling as dangerous and threatening.[134] The English had other skills, however, that could be exploited.

6.3 Transfer printing: Christopher Potter.

An Englishman who influenced the French pottery industry from 1787 onwards was Christopher Potter. He was a businessman of some means who had been involved in a variety of enterprises in England before his arrival in France in the late 1780s. He had been a gentleman farmer in Cambridgeshire with a farm of nine hundred acres that had specialised in the cultivation of woad. His methods of cultivation had been considered innovatory. Later he had been involved in the production of industrial dyes. During the American War of Independence Potter had been a major victualling contractor for the English Army. After several unsuccessful attempts to become the parliamentary member for Cambridge, Potter had been declared bankrupt. It was at this point in his career that he had left England.[135]

He came to France with certain attributes and advantages. He was not afraid to try new methods. He had been involved in industrial undertakings. The production of dyes had probably involved printing and cotton, two areas that he

would later exploit in France. His work for the Army had encouraged the need for good contacts. He was politically aware. He came to France at a time when Anglo-French relations were fragile because of the Treaty of Commerce of 1787. There were later suggestions that he was in the English Government's employ as a secret agent reporting on the state of French affairs.[136] From his subsequent successful career in French industry he seemed to have enjoyed a relationship involving cooperation with the French authorities. Perhaps he proved useful to both camps.

He later returned to England and died there.[137] The statutes referring to the exportation of English industrial processes and secrets did not have such a punitive application for entrepreneurs and manufacturers.[138] Indeed, according to some historians , it is questionable whether the English authorities ever prevented English craftsmen and entrepreneurs from returning home.[139] Potter was not the only English entrepreneur who brought new processes to French industry but experienced no difficulty in returning to England.[140]

Christopher Potter was involved in a variety of French industrial initiatives. During his career in France he had homes in Paris and Chantilly[141] and owned or managed factories in Paris,[142] Chantilly,[143] Montereau[144] and St.-Quentin.[145] He contributed to French industry and in particular influenced the development of the French pottery industry.

In 1787-1789, however, Christopher Potter concentrated mainly on the process of transfer printing which was currently in vogue in England.[146] He worked from premises in Paris in the rue de Crussol, in a concern that he had named the Prince des Galles factory.[147] He employed an English transfer printing expert to establish his business and train himself

and his English workers. This engraver was called Richard Abbey.[148] He had been apprenticed to John Sadler in Liverpool.[149] He had worked as a skilled engraver and printer for Sadler and Green before setting up his own business in Liverpool.[150] On 10 December 1773 Abbey had inserted an advertisement in the 'Liverpool Advertiser'.[151] Signed by him, it declared:

> That he had open'd his shop at No. 11 in Cliveland Square Where he manufactures and sells all sorts of Queen's Ware Printed in the neatest manner and in Variety of Colours. N. B. Orders for exportation.[152]

He offered expertise in Queensware and in colour transfer printing. He also catered for the export business. In 1774 in the same directory, Abbey is described as a china printer. His main business, however, seems to have been 'as an earthenware printer and engraver'.[153]

He came, therefore, as a skilled engraver and printer with practical experience in managing his own printing factory. Abbey was the first of the technical experts that Potter employed in his manufacturing concerns. This was how a gentleman farmer managed to create successful industrial ventures. He sought out the best available to him in a field of endeavour and employed them, paying them well for their services. Abbey apparently stayed in France till 1793. He then returned home and opened up another factory in Liverpool.[154]

In 1789 Christopher Potter applied for an exclusive privilege for his technique of decoration. He petitioned the Intendant for Trade, Tolozan, for backing in this request for a patent in July 1789.[155] The process involved the surface decoration of pottery and porcelain. Potter admitted that his method was English in origin

although in later retrospective documentation he pointed out that he and his son had perfected it.[156]

With the support of Bailly, the mayor of Paris, Potter brought this patent before the National Assembly on July 22 1789 and offered to dedicate it to the French nation. He promised a fourth of the profits to the poor and undertook to teach his process to French apprentices.[157] Two scientists, Berthollet and Desmarais,[158] studied Potter's patent application, reviewed its potential and witnessed a demonstration of the process being applied.[159]

In this report written in July 1789 these two members of the French Academy of Sciences evaluated Christopher Potter's application.[160] Both men were government advisers on scientific or technical matters. Berthollet was a chemist with an interest in ceramics who would later write books on dyeing.[161] He was also interested in English ingenuity and invention. He had met James Watt in Paris in 1786 when the engineer was there to discuss possible contracts with the French Government. He had communicated to Watt his new method to produce bleach. Watt had brought this back to England where it was later put into practice.[162] Desmarais was also a scientist who advised the Government on technical questions including ceramic matters.[163] He was an Inspecteur des Manufactures and an authority on cloth and dyeing.[164] These men were of some academic and bureaucratic standing.

In July 1789 Potter had requested government protection for the method of decoration that he called 'décor à l'impression', 'decoration by printing'. This had been registered by the Bureau du Commerce. The request was for 'an exclusive privilege for printing all sorts of designs on pottery, faïence and porcelain'. His

contact in the French Government had been Tolozan, the Intendant for Trade. His petition with favourable recommendations from Tolozan had been received by other government bodies and his English invention deemed worthy of further investigation.[165]

Christopher Potter's original application for an exclusive privilege in 1789 was made in his own hand with apologies for his lack of expertise in the French language. He did not conceal the fact that the original technique was English and had been widely used in England before his arrival in France.[166]

Potter's explanation of his process was a description of glue bat printing. The 'bat' or 'paper' consisted of a slab of ordinary thick glue that had extra fish glue added to give it more malleable properties. This was an improvement that he and his son had brought to the process. He actually used the word 'paper' interchangeably with the word 'glue' when he described the actions of the operative lifting the transfer from the engraved plate. He stressed the use of good oil for filling the plates and the strict control of heat used to keep the bats flexible and resilient.[167]

In his description of the process which is comparable to textbook versions of the technique,[168] Potter warned that if the surface of the bat or paper retained the slightest heat the transfer image would show this and would be marred. The bats had to be returned at frequent intervals to the oiled plates. Not only did he describe 'black printing' but also the transfer of coloured outlines or designs. The 'pouncing' or precise application of the finely ground colours involved the expertise of women workers.[169]

Potter claimed that the skill with which he had developed this English technical process had enabled him to decorate pottery with 'the finest, most delicate

engravings, even mezzotinto copper plate engravings. His operatives could also apply gilding using gold leaf. His decoration could be an underglaze as well as an on-glaze application. Potter also mentioned the additional process of lifting impressions using a special medium called Vantaillite paper which had been treated with silver.

This paper was cut into convenient lengths and the printer, using black soap and water, coated the surface before applying it to the engraved plate. It was then handed over to the female decorators. To speed up the process Potter suggested that larger engraved plates with different designs be used in this process. The decorators could use scissors to separate the various impressions which could then be placed on the surface of pots in the biscuit state. To remove this paper oil was smeared over it and the pot placed in a muffle kiln to dry at a low temperature. A brush then removed the transfer.[170] Potter's description was concise and clear enough for the reviewing scientists to give his processes a high commendation. They also observed the transfer printing being carried out.[171]

In his submission Potter had given his account of the process. In the version of this report that is extant in the Archives Nationales the actual name of his co-inventor is missing although a collaborator is mentioned. The name had been erased when the documents were sent to Chaptal in Year 11, in the second round of patent applications. This was when Christopher Potter reopened the whole issue of his patent.[172]

This time he appealed to the Minister of the Interior. He applied to the Institut national de la Propriété industrielle for a patent for ten years. He made it clear that this was not a new patent but one that had been vetted and

approved by outstanding scientists in 1789. He enclosed the original documents and attestations. He explained that other pottery manufacturers were applying for patents similar to his original draft of 1789.

Potter intimated that he had asked for an import licence and patent for a process that was English. He and his son had refined it considerably since then and wished to apply for an additional patent for ten years for these improvements.

Potter explained to Chaptal that he was submitting the same patent in Year 11 as he had in 1789. This process had not yet been patented in France. The reason why he was applying anew was to safeguard his and his son's rights to exploit this method of decoration. The process had been used for twenty years in England. The effects had been somewhat crude, he claimed. That was why he and his son had refined it. His patent application was a 'Description of the process of printing on porcelain, faïence, pottery, metal and varnished wood by the Citizens Potter, father and son, as well as on any other material which either by its nature or by its shape cannot be subjected to the action of the press'.[173] The title was comprehensive to safeguard exclusivity and forestall industrial litigation.

No mention was made of the missing name on the patent submission. His collaborator of nearly fourteen years earlier was probably Richard Abbey. The omission may simply have excluded his collaborator from any present benefits in Year 11, because no further involvement in the process and its subsequent improvements had taken place. Abbey had left France before Year 11. English historians locate him in Liverpool in 1793[174] so he was not contesting the issue with Potter.

Another reason may have been that Potter wished to obviate any possible claim from other English entrepreneurs that his invention was not original. There were Englishmen in France working in Queensware and developing the transfer printing industry.[175] There was also a French engraver at Sèvres who had made improvements in the process at this time.[176] In a letter to Chaptal that he enclosed with the documents Potter did say that there were other contenders in the patent stakes at that time and that was why he had revived the whole issue with such pressing requests.[177]

> I am making these observations to you as I know that there are others who seek a certificate of invention for the English method without knowing anything of my improvements.[178]

This indicates that the technique was popular and used by other entrepreneurs. The 'arrêt' passed by the Consuls in Year 9 had encouraged manufacturers to innovate and try new techniques.[179] It also motivated them to take out patents to protect themselves. Potter was doing the sensible thing to protect the rights of his heirs in the exploitation of the process.

Potter had initially presented his invention to the Government and requested a 'privilège exclusif' to be able to develop it unhindered. In cases where an exclusive privilege was requested, it was common practice that government experts investigated and validated the claims and process of the inventor before any monopoly or grant was awarded. Two scientific advisers, Berthollet and Desmarais, had drafted their observations on the technique.[180] In their report of July 1789 entitled simply: 'On the process of printing designs on pottery by Monsieur Potter', they pointed out that Potter was an English gentleman who had

worked with a colleague to perfect the invention that he had submitted to the National Assembly in 1789.[181]

They assessed the printing process employed by Potter as 'having effects that are superior and even surpass those that painting has been able to produce on pottery, faïence, glass and porcelain'. They reported that the monochrome decoration on white appeared to be defined and clear-cut. They were impressed by the uniformity and regularity of the printing process and in particular praised the quality of the images. When Potter's operatives applied coloured transfers, Berthollet and Desmarais declared that 'the results of this new work will have more sharpness and precision than any painting might produce in this kind of work'.[182]

In addition to the sheer quality and clarity of Potter's transfer printing known as 'black printing' in England in the eighteenth century, the two academicians praised the actual speed and dexterity exhibited by the operatives.

> As regards the expeditious manner in which all this work is carried out, these artists are not only in a position to work on all sorts of less complicated subjects at a very low price but can also cope with more complex requirements, using their talents to meet short term deadlines.[183]

They then gave details of the amount of work that could be tackled swiftly by only two men so that an entire kiln of items could be decorated and fired without holding up production.[184] This is reminiscent of Sadler and Green's performance in England in 1756 when they signed an affidavit attesting to the speed and accuracy of their process.[185] For commercial reasons this Liverpool firm did not

carry through its application for an English patent covering this process of transfer printing.

In their report Berthollet and Desmarais then commented on the art of ceramic decoration in France in 1789.

> We have a serious lack here of people who know how to decorate pottery in colours which are appropriate to the goods and at a price which is low in today's market. This process normally requires an expertise in ordinary painting which is more expensive even if the results are handsome.[186]

This indicated a pragmatic grasp of contemporary markets on the part of these academics. Their good sense is further exhibited when they suggested that Potter's method of printing would be useful for dealers and merchants by providing back stamps and identification marks on the pottery itself.[187]

As scientists they were impressed by the reliability and constancy of the decoration used and fired on a range of surfaces which included Queensware, earthenware and porcelain. Once decorated, the pieces were fired in a muffle kiln and acquired a 'resonance and surface finish which greatly enhance the design as well as the form'. Berthollet and Desmarais stressed that the decorated ware had to be fired at 'an appropriately high temperature'.[188]

Another aspect of the Potter initiative that interested these scientists and technocrats was the educative and training potential together with the use that the State could make of a manufacturer like Potter.

> It is certain that these artists are training workers and that in consequence they will be able to have half of them doing this kind of work in the future.[189]

This indicated that the way for the widespread application of this process had already been considered by these inspectors. They endorsed Potter's request for a monopoly for ten years provided that:

> They must undertake to train apprentices capable of developing further this new technique which is of value to our industry.[190]

Berthollet and Desmarais also indicated that Potter and his associate were going to make their techniques accessible for general usage and dissemination among French manufacturers.

> Once they have obtained the monopoly they are going to set up a system whereby all the knowledge, all the techniques will be available so that the commissioners can copy the designs in detail. This will suffice to make known the means of execution and raise to a fine art the means of decorating pottery as they do.[191]

They pointed out the usefulness of this process. To have made such an evaluation they must have studied Potter and his staff at close quarters in an environment which possessed the correct facilities. This was probably in his Prince des Galles factory in Paris.

From the details of this report on his transfer printing process, the French Government valued Potter and intended to make full use of his talents. In personal discussions with Potter the government scientists had deduced that he needed the exclusive privilege because he did not have sufficient means to stave

off competition or continue to fund his research on the process without some government protection.[192]

Berthollet and Desmarais believed that this English method of decoration would enable French pottery manufacturers to 'reach a point of superiority from which they can devastate English products and offer their own products abroad'.[193] For this reason they admitted that Potter and his co-inventor deserved to be 'welcomed and protected and reassured'. They stated that:

> The exclusive privilege that they ask for must be granted on the understanding that this kind of process has not been attempted in France already.[194]

In the final section of this report on the transfer of this English technology Berthollet and Desmarais made an important assessment. This encapsulated all that the French found commendable in the way that English workers operated in factory conditions:

> All the articles included in this privilege cover the art of perfecting the delicate, simple, fast, efficient and economic means of decorating creamware, earthenware and porcelain. This seems to us to be very important. The prices that they expect are bound to have an important influence on Commerce in general.[195]

This report was laudatory and clear in its recommendations.

Tolozan in 1790 also stated that he was in favour of granting Potter the exclusive privilege.[196] Potter, however, did not receive government protection in 1789 or 1790. On the actual report that had been written by the government Inspectors,

Tolozan had jotted a personal comment as to why the patent had not been granted in July 1789. He added these remarks on 25 January 1790.[197] He stated that:

> The delay had been caused by the need to wait until the National Assembly has addressed the problem of policy with regard to exclusive privileges.[198]

It appears that such industrial questions constituted an aspect of government policy. The idea of monopolies and state protection for the deserving manufacturer did not disappear. The system was simplified and the question of cash incentives or gifts removed from the list of government alternatives. As has been noted, the issue of loans to manufacturers remained, however. It also proved to be a contentious and ambivalent problem for successive Governments within the context of the war economy that followed after 1793.

In 1791 a National Patent Institute was established on the same lines as the English Patent Office and fees were charged for the registration of patents and for any additional improvements to the original application.[199] The French system also included attestations signed and sealed before a notary. This was similar to the English system. Whether this legal claim to originality gave added security is hard to say. Litigation and industrial disputes cropped up regularly as French manufacturers adapted to the industrial climate of free enterprise and innovation.[200]

With the general application of English transfer printing methods the French pottery industry took a large step forward in terms of mass production. This is what had happened when manufacturers in England had adopted black printing in earlier decades. The final stages of production had been speeded up.

Christopher Potter was decorating his wares using the process of bat printing that was common in England well before this time. He stated that this was how many manufacturers had decorated their wares.[201] The method, so he claimed, had produced only crude designs. He had refined it and hoped to continue to do so in France provided the Government allowed him time by protecting him from competition. What happened after Year 11 was that other innovative entrepreneurs, often Englishmen, took out further patents that refined the original process. Potter's application had been timely.

This mode of decoration had various advantages from the point of view of manufacturing and marketing. On the manufacturing level it helped to speed up production by moving on from hand painting. It standardised performance and facilitated greater quality more cost-effectively. It also increased the overall range of quality in output by disguising minor flaws in the individual pottery pieces. Speed, quality and better market value usually accompanied the use of transfer printing. It was also new as well as English. 'Anglomanie' still dominated French markets despite the fact that France was at war with the English.

Why Potter did not pursue the matter of his patent till Year 11 is worthy of comment. It could be that a shrewd operator like Potter realised from his own market research that he had little to fear in the prevailing industrial climate following the Revolution. Manufacturers needed time to adjust to the new France of the 1790s with all the social and political changes that this entailed. He refined the English bat printing process as it came to be known in the nineteenth century. His description of the process remained close to the classic English definition that has come down through ceramic

research.[202] He never concealed that his patent was an English invention and was currently exploited in England. He saw a gap in French technology and filled it profitably.

The French Government did not appear to make a special project of the English transfer printing process despite the detailed report that it had funded. As has been noted, it did become known among French manufacturers making English Queensware. Its real 'take-off' in industrial terms was in the 1800s when several factories that specialised as 'établissements d' impression'[203] opened up in Paris. These decorated the wares from the increased number of manufactories producing Queensware. This probably pushed Potter into obtaining a monopoly for his technique. The printing businesses catered for factories all over the region in much the same way as similar establishments did in the Potteries in England.[204]

The Minister of the Interior did grant Potter his patents in Year 11.[205] Potter maintained an interest in pottery production and decoration even after he diversified his industrial pursuits. His elder son, Thomas Mills Potter, also exploited his father's patents. In correspondence about the matter, he indicated to the 'préfet' of the Seine department that he resided and worked in Givry.[206] The Minister of the Interior, through the agency of the Bureau des Arts et Métiers, undertook that two patent certificates were duly sent to Potter. Shortly afterwards, Potter asked the Government to transfer both patents solely to the name of his son, Thomas Mills Potter.[207] This was also done promptly.

The transfer of English technology had once more been officially acknowledged. This method of decoration would impel French pottery manufacture into the early stages of mass production.

6.4 The Chantilly factory: Christopher Potter.

As has been seen, Potter operated a transfer printing factory in Paris. This was in the old Prince des Galles factory in the rue de Crussol.[208] The next stage in the career of Potter was the management of a Queensware manufactory at Chantilly. This was a successful venture which remained viable under Potter's management till 1802.[209] In this year it was taken over by the Paillart brothers who had been trained by the Queensware manufacturer, Ollivier of the Faubourg Saint Antoine in Paris.[210]

Potter began to manufacture English Queensware at the former Condé factories in Chantilly which he had purchased and reopened in 1792. This factory was a 'bien national' and had been bought from the Government. In Year 3 Potter had applied for government backing for expansion plans that he was considering. This and his successful exploitation of the acquisition brought him to the attention of the authorities. Here was an Englishman producing high quality English Queensware in a factory that had been sold as a 'bien national'.[211] His patent application in 1789 had already brought him to the notice of the Government on the recommendations of scientists and Ministers interested in trade and manufacturing.

In Brumaire Year 3 the French Government funded investigations that were carried out by expert commissioners. They visited the Chantilly factory and reviewed Potter's English factory methods and manufacturing techniques. As in

the Ancien Régime, this was generally done before the Government considered any backing for industry.[212] Here was the kind of dynamic, entrepreneurial example that the state wanted and needed as a flagship enterprise in a specialist industry. Potter and Queensware were not without value to French industry.

Criticisms had been levelled at the Government's inertia in coping with the flow of English manufactured products into France since 1787. The policy of the Government was to assimilate English methods, to beat the English potters with their own weapons. Here was an opportunity to acquire first-hand information on how Queensware was produced.

In Brumaire Year 3 a 'Rapport sur la Manufacture de Faïence de Chantilly' was delivered to the Commission of Agriculture and Arts by the citizens Besson and Darcet.[213] Few details about these government officials are given in the archives. They were commissioners employed by the Ministry of the Interior. The department of Arts and Manufactures was subdivided into commissions. Besson and Darcet worked for the commission of Agriculture and the Arts. This dealt with the exploitation of the 'biens nationaux' which were promoted as entrepreneurial opportunities for citizens. Opening up manufacturing premises or setting up farms were the two most common forms of development that the Government suggested.[214]

These divisions sent out bureaucrats who operated as investigators, inspectors and experts employed to advise the Government in specific areas. As has been seen in the case of William Sturgeon in Rouen, a 'commissaire de recouvrements' was sent to investigate his factory in 1792. This particular commissioner, Turpin,

had the right to interfere with Sturgeon's monies.[215] Commissioners were consequently officials to be regarded with respect if not caution.

These two government experts had a specific brief to look at Potter's wares and how they were manufactured. This involved spending time at his factory in Chantilly. They studied his firing techniques and kiln discipline, examined his Queensware product and discussed his method of reckoning pottery output. They spoke to his employees and did a profile on Potter himself. The training of staff and apprentices also merited their interest as did the general running and organisation of the factory. They pointed out the merits, capabilities and tendencies of the English workman and compared him with his French equivalent. They examined all aspects of Potter's production from the way the operatives handled the clay to the actual methods of making the quality product. They noted that the manufactured goods were not stored on the premises or in nearby Chantilly but freighted directly to dealers and merchants around Paris and elsewhere. Potter indicated that everything that he made was already ordered or sold. His wares were decorated at his transfer printing factory in the city.[216]

The streamlined efficiency of the factory impressed the inspectors as did the quality of the product which closely resembled English imported Queensware. They commented that they had seen quantities of English Wedgwood ware around the factory premises. When they questioned Christopher Potter about this he had informed them that he used the English goods as yardsticks for his own production. These were the pieces that he imitated. Besson and Darcet then witnessed the unloading of a kiln after a glost firing. They verified that they had seen high-quality Chantilly Queensware being unloaded ready for packing and

despatch.[217] Their misgivings about the quantities of Wedgwood ware observed around the factory were thus allayed.

Besson and Darcet were first of all impressed by the high morale that they found at the factory. Potter paid his workers well and firmly believed that training encouraged personnel to remain with the factory and not take its talent and his investment elsewhere. Skills were rewarded because they were 'useful to the enterprise as a whole'. Everyone, young and old, enjoyed working for Christopher Potter. He was often to be found amongst his employees, working, mingling and living amongst them. His workforce admired him and emulated him. He was regarded as 'a father to his men'.[218]

According to Besson and Darcet, Potter was a sound judge of character and knew how to choose the right men and how to instil loyalty and enthusiasm in them. He retained only good workers and sacked those that he regarded as a liability. He was 'a businessman of vision and courage' who loved the challenge of new ventures. His workforce made efforts to meet his demands without quibble. His paternalism and protection ensured that the factory ran smoothly and efficiently. Christopher Potter believed that the English strengths he brought to French manufacturing were 'training, work methods and discipline' which his managers supervised and enforced.[219]

The government inspectors were impressed that the methods of production in the workshops included division of labour. Each operative or group of workers concentrated on only one aspect of the manufacturing process. Each step of production was effected smoothly and swiftly with minimal hesitation and inaccuracy. The inspectors noted that the workers took pride in their work and

were not only fast but painstaking in their attention to detail. If they encountered some problem in the process they took time to solve it. A shoddy product was not tolerated and the workers themselves operated an effective quality control during the actual production.[220] Besson and Darcet argued that by copying English methods the French pottery industry could move on from being a cottage industry. With changes to its infrastructure, it could develop on the organised lines of a factory system.[221]

The key workers at the Chantilly factory were English as were the managers but most of the operatives were French. There were many apprentices. Production took place on different sites because of the layout of the factory complex. Potter had plans to build a new, better-designed factory on the Isle Adam which was adjacent. For this he required financial backing from the State.

At Chantilly the vital operations such as the preparation of clay bodies and the mixing of glazes were the sole domain of the English personnel. This was also true of the loading and unloading of the kilns. The firing process was similarly handled by the English workers.[222] The factory premises in Chantilly that Potter occupied had been part of the former porcelain factory owned by the duc de Condé. Porcelain was generally fired with wood wherever it was manufactured. Kilns that used wood-fired technology were not ideal for the production of Queensware. This was probably one of the reasons why Potter wanted to move to a fresh site where he could build the requisite English kilns which would use coal.

Besson and Darcet were particularly taken by the English method of calculating the amount of ware that was produced. Potter and his operatives reckoned in 'plates'. Each plate meant so many dishes, cups, saucers and bowls.[223] This was

based on the amount of clay used in the production of the articles. One plate weighed as much as several bowls. In England during the same period the output of most factories was calculated in 'dozens', where a 'dozen' might comprise anything up to 36 or more items.[224] The French inspectors approved of this method of reckoning in 'plates' and deemed it typically English. They suggested that it simplified matters and could be a useful addition to French manufacturing good practice.

One of the aspects of Potter's factory at Chantilly that particularly impressed Besson and Darcet was the high quality of work that the English managers successfully produced with the French workforce. This was achieved without apparent stress or pressure. More than anything, the quality was attributable to a precise, ordered, clean way of working. Discipline, organisation, duty and responsibility motivated the workers.[225]

The French inspectors identified in the English craftsmen a work ethic which did not condone shirking or shoddiness. They were proud of the work that they did and consequently executed it well. They had a sense of their own worth as craftsmen. There was 'corporate pride and unity'. Many of the workmen had been with Potter for years. They were trusted and reliable employees. The French inspectors saw this evolved English work ethic as a paradigm for a French cultural ethos. They suggested that this could be the basis of a new social and individual awareness among French workers.[226]

These government experts pointed out what many French potters would say in later reports to the French Government. The general quality of French pottery was mediocre, even poor.[227] The high standard of work performance exhibited by the

English contingent of Potter's workforce led Besson and Darcet to deduce that the quality of the product was directly related to the calibre of the workforce. It was not possible to employ just any available workforce and expect to manufacture a good product.[228] In France in Year 3 the type of workforce that was available was limited in a wartime situation when the young, able-bodied and skilled had been conscripted. In the Ancien Régime there had been a fluctuating, seasonal workforce which had moved from job to job. They were often skilled and semi-skilled.[229] There had also been journeymen craftsmen who had gone from town to town throughout France as they learnt their trade.[230] This was called the 'tour de France.[231] It was organised by the trade corporations. An additional aspect was that many workmen were literate and some also numerate.[232]

During the war manufacturers complained to the Government that the pool of workers was quite different. They were frequently untrained and included the poor and the mendicant.[233] Conscription had taken many workers away from French industry. Manufacturers found it increasingly difficult to employ skilled workers in their factories. The quality of the manufactured product suffered as a result. Conscription had, thus, made the standard of production for French manufacturers all the more variable.[234] This was hardly conducive to the manufacture of quality goods that had to compete with English imports. English workers could not be conscripted. Their skills were invaluable to French industry as operatives and trainers.

Besson and Darcet argued that the workforce in English industries in France had to be highly trained. This meant 'years of training in factory situations'. The workforce also had to be skilled. To the French inspectors this meant 'deftness,

speed, smoothness and confidence in each part of the operation'.[235] Berthollet and Desmarais had also praised the same dexterity. In addition, the worker had to be adaptable and able to think his way out of a problem. To the attributes of skill, training and versatility, Besson and Darcet added basic educational skills.[236] There were many schools in the Paris region just before the Revolution so the general level of education among the workforce in normal conditions would not have been excessively low.[237] Wartime production, however, was a different matter.

The French worker, according to Besson and Darcet, was 'not so well-trained' nor so 'disciplined in carrying out his tasks' as his English equivalent.[238] They claimed that he was less well-schooled than his English counterpart.[239] The observations made at Chantilly had helped these officials formulate a code of industrial practice. Earlier criticisms of French industrial methods had stated that many entrepreneurs could not read. The same was probably true of their workforce. If this applied to the French cloth industry in 1776 it may not, however, have had any validity twenty years later in the pottery industry in Paris.[240] It has been stated that before 1789 industrial training was carried out in the workplace:

> There is no doubt that training of the son by the father was one of the basic forms of craft training in pre-Revolutionary France.[241]

Besson and Darcet pointed out that more general instruction was required. The need to be accurate and precise required certain basic skills. The French worker's ease with quantities and measurement was limited. This is borne out by the diffidence that craftsmen sometimes exhibited in these competencies.[242] The

French inspectors also criticised the attitude of the French worker. They argued that the French worker was 'too easily pleased' and was 'not prepared to persevere to achieve good results'.[243] He lacked adherence to a code of ethics that gave meaning to his working existence. This, they believed, carried over into his social awareness.[244]

Besson and Darcet suggested that a healthy work ethic was synonymous with a valid cultural ethos and sense of social identity. This was how they saw the future of French industry. A combination of independent but culturally and socially motivated workers would strive together in a single goal. The aim was 'to liberate France from the domination of English industrial imports'. 'Industry was vital to the nation'.[245] This was the official government line.

The calibre of the workers was, therefore, important. Good workers were to be sought after. Poor workers were to be jettisoned as a liability. The key to good workers was thorough training which should begin at an early age. This was what Potter advocated. The French inspectors admired the English training methods that they saw in Potter's establishment. An evolved apprenticeship programme was something that they wanted from Potter and his English managers.[246] This was what he had promised before the Assemblée Nationale in July 1789.[247] Besson and Darcet suggested that good training would create a pool of skilled French workers 'formés pour la prospérité du commerce et pour la gloire de la République'. Industry, trade and nationalism were underpinned by 'formation' or training.[248]

In their report to the French Government these factory inspectors gave a critical account of the French worker in the early stages of training. They argued that he

was 'unwilling to learn, reluctant to accept authority' and 'found sustained concentration and effort alien to his character'.[249] Discipline problems were rife and training in workshops uneven and variable.[250] Contemporary accounts underpin these criticisms.[251] Besson and Darcet criticised the attitude of French youth but 'blamed the institutions of State and industry' for not helping it enough. They argued that the input of systematic instruction offered by a more structured English apprenticeship package, would reshape values and encourage new attitudes. By instilling an awareness of duty, responsibility and discipline they hoped to awaken 'a respect for law and order' and 'a distaste for the unstructured and the arbitrary' among young French workers.[252]

The duty of the Government was to encourage the manufacturer to invest in better training. The proof was there in Potter's establishment. This was an opportunity to copy not only English pottery but also the way that the English made it and trained their workforce to maintain the necessary standards of production.[253] This was technology transfer on different levels.

6.5 The introduction of mocha decoration.

In the late 1790s and at the beginning of the nineteenth century the French pottery industry began to develop along more modern lines as the new methods of production initiated by various English entrepreneurs in France took effect. English workers were operating in France in the employ of English manufacturers like Potter or in the wave of French factories that specialised in English pottery. These were dotted around France and in particular in the regions around Paris.[254] Cheap and efficient river communication along the Oise and the Seine encouraged this as did the convenient clay beds at Montereau.

Establishing a factory near the capital also ensured a ready market as the shops in Paris were always full of English or English-style pottery according to the contemporary industrial archives.[255] Christopher Potter had said that his entire output was sold before it had left the kiln.[256] Moitte, a manufacturer of Queensware himself, would claim at a later date that the Paris factories could never produce enough English wares to meet demand.[257] The French consumer and in particular the Parisian shopper had not lost his taste for English pottery. This became a modest boom in English Queensware as consumer patterns expanded to encompass the economically autonomous customers in the provinces and in the countryside.[258] All this was taking place within the framework of a war economy.

The Prince des Galles factory in Paris had led the way in introducing the English technological breakthrough of transfer printing to the French industry. The Queensware manufactory in Chantilly continued this under the leadership of Christopher Potter. As more Englishmen came to work in France in the late 1790s and early 1800s they too brought what was new in English manufacturing. This included methods of decoration which they employed in French factories. These developments contributed to the streamlining of the French industry as production was speeded up and simplified. The division of labour facilitated the first steps towards mass production.

An alternative to transfer printing that was brought from England at this time was the technique of mocha decoration.[259] This had been used in England in the 1790s and perhaps earlier in many of the English factories in Derbyshire and Leeds as well as the Staffordshire potteries.[260] This process involved pots in an

unfired state. A liquid mixture with special reactive properties was applied to the surface of a leather-hard, turned piece which had not yet been to the biscuit kiln. The pot had been dipped in a coloured or plain liquid slip and the operative had then drizzled varying amounts of the reactive agent on to the surface of the wet slip.

The special mixture worked best using a solution of urine or tobacco which had been boiled like an infusion of tea. The smooth, fine body of the Queensware product had properties that made it an ideal vehicle for this method of decoration. In this process the only skilled operative involved was the turner whose speed and dexterity caused the surface application to form a dendritic effect similar to that found in chalcedony or moss agate. The amount of mixture he used affected the size and frequency of the tree effect.[261] The French called this decoration 'décor d' herborisation' and applied it to all sorts of Queensware products with considerable success.[262] It became a fashionable mode of decoration with good market results.

Mocha decoration did not require engravings, glues, oils, pads or wads of silk or wool, copper or fine metal sheets which had to be heated, or special and expensive paper to take the print and transfer it to the surface of the pot. No engraver, transfer printer or skilled female decorators were required. It involved fairly standard ingredients but some dexterity in handling unfired wares. Mocha decoration was the preserve of the turner. It was fast, cost-effective and produced results that were popular with the consumer. It was also new and English. Exploiting such a combination was a good marketing move on the part of the French manufacturer.

On 1 May 1806 Champagny, the Minister of the Interior, acknowledged the request for a patent certificate for five years from a John Stevenson, living in Creil on the Oise.[263] By the law passed by the Consuls on 5 Vendémiaire Year 9, which protected the rights 'aux auteurs de découvertes en tout genre d'industrie', Champagny granted Stevenson:

> un brevet pour l'invention consistant à établir des peintures herborisées sur toute espèce de fayence.[264]

Champagny went on to say that Stevenson claimed to be the inventor of this method of 'painting trees on pottery'. The Englishman did not admit that he was asking for a French patent for an English process. Stevenson had sent pieces decorated by this process to the 'préfet' of the Oise department as proof of his authorship. He had enclosed a detailed account of the process. He had also sent an engraved page from a catalogue that featured a selection of mocha items.[265] This indicated that the process had been in use for some time. It also suggested that the manufacturer had sufficiently good market outlets to warrant the printing of a catalogue with a range of goods decorated with mocha.

The patent for five years was granted to Jean Stevenson as an individual inventor and not to the factory at Creil that employed him. This was in line with the Government's policy of creating new manufacturing freedoms for the individual. It assured the right to exploit and develop innovative ideas. The factory could enjoy the benefits of the monopoly that its employee had been granted but did not 'own' the process. The ultimate industrial accolade for French manufacturers was to win a gold medal at an industrial exhibition organised by the Government.

Despite this, one of the owners of the factory at Creil gave a prompt legal response to the monopolistic aspect of the patent that the employee, Stevenson, had been granted on 27 June 1806. His reaction was worthy of any Ancien Régime manufacturer whose 'privilège exclusif' or 'titre royal' had been infringed. In November 1806 Saint Cricq Casaux visited the owner of the Queensware factory at Montereau-faut-Yonne.[266] He made it clear that Merlin Hall's production of Queensware with mocha decoration was contravening the patent that his operative had been granted by the Minister of the Interior. He insisted, through government channels, that all the goods of the Montereau establishment be seized and impounded.[267]

Merlin Hall, the owner of the factory whose production Saint Cricq Casaux wished to stop, complained in turn to the Minister of the Interior and sent him a signed affidavit from the mayor of Montereau. This document declared that their manufactory had already been using mocha as a means of decoration for three years before 1806. They added that mocha ware was very fashionable and had a healthy market potential.

> Ces objets étaient fort à la mode et qu'il n'y avait aucune raison pour que la manufacture soit privée de ce genre de marchandise à cause d'un prétendu brevet d'invention accordé à Stevenson.[268]

He was disparaging of the monopolistic aspects of Stevenson's patent. He was dismissive of Stevenson himself. He asserted that this Englishman had worked for him at an earlier date and that he had been instructed in this process at the Montereau factory. He had come to Merlin Hall looking for work. There was no

work for him solely as a turner. Stevenson had consequently been trained to apply mocha decoration to a range of Queensware.

> On ne lui a montré que pour lui donner un moyen d'exister ne pouvant l'occuper à son état de tournoyeur pour lequel il était venu demander de l'ouvrage'.[269]

Merlin Hall was disappointed that a man that he had helped had betrayed his trust and generosity. He declared that the patent was unjust and that he would continue to manufacture Queensware with this decoration. The dispute lasted for some time and often became acrimonious as the two factories contested precedence in the French consumer market. The Montereau proprietor was more balanced in his approach as he identified the market as being large enough to accommodate both of their outputs. The Creil management remained obdurate and would be involved in other litigious disputes. This was perhaps because there were more shareholders involved in the Creil concern who demanded a steady return for their investment in a relatively new and costly manufacturing endeavour.[270]

Stevenson had been employed at Montereau and had become acquainted with the techniques of mocha application employed there. As a turner by trade he had probably known of this technique in England and already had some experience of it. There are archival references to a John Stevenson in another Queensware factory in France. There are also examples of crude mocha decoration at this factory.[271] There was a traffic in English personnel between these Queensware factories with English origins or English managers. This was within a wartime context when working conditions were constrained. Permission could usually be

obtained for English workers to have some mobility and still remain registered on the list of prisoners of war.[272]

The 'arrêt' of the Consuls of 5 Vendémiaire Year 9 probably had something to do with this increase in the number of industrial and manufacturing initiatives at this time.[273] It protected and encouraged the enterprising and the innovative. Workers who had been with Potter at Chantilly moved on to Creil.[274] The Queensware factory at Montereau already had a long history of English connections from its establishment in 1774.[275] One of the Leigh brothers from Douai also ended up in Montereau in 1796.[276] Doubtless the Leigh brothers still had connections in the Potteries and could have introduced this new English technique to Montereau through a fresh intake of English potters.[277]

Stevenson stayed in Creil for some time, married and continued to work for Saint Cricq Casaux and his partners.[278] Pieces from both factories dating from this period show identical designs with little to differentiate them.[279] There is an example of each before me as I write. Yet again, another aspect of English technology had been successfully transferred to the French pottery industry.

6.6 **Conclusion.**

After the Revolution broke out factories did founder and many industrial concerns were ruined but they may already have been unstable. Years of smuggled imports together with the Treaty of Commerce and the flood of English goods that followed this economic measure had done more to destroy French industry than the events of 1789.

The stringencies of a war economy following 1793, together with the hazards of inflation and unstable Revolutionary currencies aggravated the problems of industry. Despite import embargoes, English smuggling retained its domination of French markets and 'anglomanie' continued to prevail.

The industrial files of the post-Revolutionary period show that the 'mémoires' from potters and manufacturers have changed in content and tone. Gone is the polite deference as a potter asked for an exclusive privilege, or an exemption, or a grant, or applied for letters patent to set up an establishment. These reports are critical and direct as the potters question the policies of their Government. These entrepreneurs are individuals with personal views and the courage to say what they think. They ask for answers and suggest solutions. They admit bewilderment and confusion because they do not understand what their Government is doing. They are aware of their rights and of the responsibility of the State towards them and their industry. These potters are well-informed and pragmatic in what they propose. What is going on in French industry after 1789 is very different from the time when workers could be arrested and detained by a 'lettre de cachet'.

The French industrial files of the1790s and 1800s indicate that French potters continued to blame the English for the unhealthy state of the pottery industry in France. There was, however, evidence of a growing self-analysis and criticism of the weaknesses inherent in their industry. It was argued that manufacturers had to change and be more resolute in the face of English competition. Some potters believed that there were possible solutions to the problem of smuggled English goods and these they suggested to the Government. The proposals were varied

but often included the adoption of English pottery methods in preparation and production to improve quality.

French Industrialists and potters thus wrote 'mémoires' to the Government and gave their particular view of the situation. In their critical communications they demanded a more helpful government stance. In the analytical documents they pointed out the inadequacies inherent in the French pottery industry. They offered solutions and plans of action. They were optimistic that the French manufacturer could survive by adopting English methods of manufacture. This was a theme that would be repeated in a variety of situations in the industrial archives.

In the reports that pottery manufacturers sent to the Government there were often accounts of situations that distressed or angered the potters and which they wanted the authorities to monitor or redress. Smuggling on the part of the English was a recurrent theme. English pottery was a prohibited commodity in France. It was, however, available all over the country, openly for sale in shops, markets and fairs. Ships laden with English Queensware lay at anchor in French ports. English pottery was being passed off as a French product. The French potters expressed dismay and confusion that the Government was doing nothing to safeguard their livelihood and their future.

Consumer patterns had altered since the Revolution as the large peasant class began to emerge as an autonomous entity. Pottery manufacturers had claimed that consumer tastes were changing. The rural population wanted to purchase English-style goods. Ordinary citizens in town and country had obtained the opportunity to become employers, landowners and shareholders in a new democratised society which embraced the small scale as well as the large. Tastes

in pottery had evolved as the French market continued to be penetrated by ordinary, cheap, available but smuggled, English Queensware. There was a vast and ready market available to French Queensware. French producers were aware of this and they passed on the fact to the Government. All this was happening in a war economy.

Ministers and bureaucrats responded to the charges directed at the State by the manufacturers. They noted what information was new or useful. The Government, however, with more pressing issues to address, made efforts to ease the French manufacturer out of the dependent mode into a more dynamic, entrepreneurial approach to competition and challenge.

Industrial issues remained a part of the Government's policy and action on monopolies and the exploitation of patents engaged its consideration. Laws dealing with industrial innovation, trading prohibitions or the setting up of manufactories involved the State. Good practice in industrial terms was exemplified in national industrial exhibitions where gold medals of excellence could be won. Government newspapers published details of new manufacturing achievements and national industrial exhibitions displayed examples of new technology.

There were English artisans and entrepreneurs in France who remained and imparted their technical and industrial expertise to French industry. These men were often involved in more than one English manufacturing endeavour. English entrepreneurs, together with their English workforce or French staff trained in English factory methods, were once more in the vanguard of technological change in the pottery industry in France. They proved to be innovative and successful.

They were awarded gold medals and were granted patent certificates for technologies that were English and already exploited in England but were new to France. Sometimes they admitted that the techniques were English sometimes they did not. The French manufacturers exploited these English innovations to their industry. Consumer trends also indicated market approval.

More importantly, these industrial techniques shunted the French pottery industry further along the manufacturing track towards mass production methods. It moved from a cottage industry to a factory system. Transfer printing made the decoration of wares faster and cheaper and brought French Queensware production more in line with its English counterpart. Mocha decoration was even cheaper and faster than transfer printing and became a firm favourite with the French consumer.

The pattern of French domestic consumption continued to change within the economics of war. Residents in the countryside as well as in the town had the opportunity to buy English goods. Consumer taste evolved and demanded products that were less crude. Cheap English smuggled goods were better made and more durable. This English reliability became equated with quality. Quality became an issue in production. Reliability and quality in the everyday items had to be replicated. This was where the biggest market lay. Quality meant much more than elegance or exclusivity.

As early as 1789 the French Government had been informed by its technical advisers from the Academy of Sciences that the quality of transfer printing techniques employed by an English entrepreneur in France could be of considerable commercial interest to the French pottery industry. The

recommendations of these academics for the implantation of English technical expertise were further endorsed by the detailed report of commissioner inspectors.

The commissioners agreed that English skills and methods should be incorporated into the French pottery industry and generally disseminated. The recommendation was that the French manufacturer should emulate English processes and technologies. They were good for French industry and contributed to the growing prosperity of the French nation. Assimilation of English methods, factory organisation and apprenticeship training programmes were the keys to the future. They would enable France to end the market domination by English imports. The experts argued that this was a means of competing effectively with English goods that threatened French markets. It was the national duty of the French manufacturer to replace English pottery with French goods.

Theories were formulated by French bureaucrats about the cultural ethos of a work force developing a social identity within its work environment. This would then be translated to the body politic to create a sense of unity and nationalism. Training and discipline would help mould the French work ethic. They would encourage respect for law and order and make workers more skilful and cooperative like their English counterparts. Josiah Wedgwood could have predicted only partial success. He had long since despaired of moulding and influencing the English potter.

The French worker was looked at critically and his weaknesses analysed. His lack of skill and aptitude were attributed to lack of training. His poor attitude was identified as a lack of corporate identity. Years earlier John Holker (père) had said that the French worker was as good as any in England if given the correct training.

This is what academicians and government inspectors thought after 1789. They argued that the quality of the product was relative to the calibre of the worker. The more reformative views were expressed by the factory inspectors while the academics remained pragmatic and concise. The transfer of English technology once more dominated French thinking.

The manufactory at Montereau appeared in the continued transfer of English technology to the French pottery industry. With the factories at Chantilly and Creil, it encapsulated English expertise in Queensware manufacture and was in the vanguard among French entrepreneurs. In the issue over the mocha patent, the litigant, of aristocratic background but with many years of service to the Emperor, behaved in a way reminiscent of an entrepreneur in the Ancien Régime. His rival's stock was seized and the manufacture threatened indefinitely. After years of litigation the two factories settled their differences. They combined their forces to continue the transfer of English technology to the French pottery industry.

Chapter 6 Endnotes.

[1] Idem. Also Denis Woronoff, La République bourgeoise (Paris, 1972), p. 116.
[2] A. N. F 12 1003, 30 Frimaire An XI. Also, Dictionary of National Biography (Oxford, 1917), XVI, p. 214.
[3] A. N. F 12 1559, 1789, Picquet, report on Chamberlain, 1804-5, Bosc D'Antic and Lasteyrie, report on Oppenheim; 2442, An 3, Besson and Darcet, report on Christopher Potter.
[4] Idem.
[5] Idem.
[6] A. N. F 12 2442, Christopher Potter; 1003, An 11, C. Potter (père) au Citoyen Chaptal (Minister of the Interior). The latter reference is to a request for a patent dated 22 July 1789 which Potter had presented to the Assemblée Nationale.
[7] Neil Cossons (ed.) Rees's Manufacturing Industry (1819-20), A Selection from The Cyclopaedia; or Universal Dictionary of Arts, Sciences and Literature by Abraham Rees (Trowbridge, 1972), 1, p. 137.
[8] Chapters 6 and 7 below will outline some of these changes.
[9] Propriété Industrielle, Brevets d'invention, 30 Frimaire An XI to Christopher and Thomas Mills Potter; 28 Pluviose An XI to Thomas Mills Potter; 1 May 1806 to Jean Stevenson; 10 January 1808 to Stone, Coquerel and Legros d'Anizy.
[10] Idem.
[11] A. N. F 12 1559, 10 July 1806, Jousselin to the Minister of the Interior.
[12] A. N. F 12 1498 A, An 8, Moitte.
[13] Keele University, The Wedgwood Manuscripts, Liverpool and Etruria, 23204-31, 24 November 1787, abstract of a letter from Messrs. H. Sykes & Co. Bordeaux.
[14] A. N. F 12 2442, An 10, Michaut.
[15] Propriété industrielle, Brevets d'invention, 30 Frimaire An XI, to Christopher and Thomas Mills Potter; 28 Pluviôse An XI, to Thomas Mills Potter; 1 May 1806, to Jean Stevenson.
[16] Rodney Hampson, correspondence with the author, 14 May 2001.
[17] A. N. F 12 1498 A, 1 Nivôse An 3, Houzé, report to the Minister of the Interior; 1559, An 5, report to the Minister of the Interior; 2442, An 10, Michaut.
[18] A. N. F 12 1559, 10 July 1806, Jousselin.
[19] Idem.
[20] Colin Heywood, 'The Role of the Peasantry in French Industrialization, 1815-1880', in The Economic History Review, Second Series, vol. XXXIV, no. 3, August 1981, passim, p. 360.
[21] François Crouzet, 'French Economic growth in the Nineteenth Century Reconsidered', in History, 59 (1974), n.p.
[22] A. N. F 12 1559, 9 Fructidor An 5, Neufchâteau, circular.
[23] Rodney Hampson, correspondence with the author, January to September, 2001.
[24] Neil McKendrick, John Brewer, J. H. Plumb, The Birth of a Consumer Society. The Commercialization of Eighteenth-Century England (Bloomington, 1985), p. 136.
[25] A. N. F 12 1559, An 6, Jousselin.

[26] Dictionary of National Biography (Oxford, 1917), XVI, Christopher Potter, p. 214.
[27] Idem.
[28] A. N. F 12 1498 A, An 3, Espercieux; 1498 B, An 8, Moitte; 1559, 1803, Leuillier; 1559, 1803, Jousselin.
[29] A. N. F 12 1559, 10 July 1806, Jousselin, Essays on the General Improvement in Pottery.
[30] Idem.
[31] Idem.
[32] Ibid., 23 January 1808, François-Louis Ollivier to the Minister of the Interior, Report on Faïence.
[33] Ibid., 10 July 1806, Jousselin, Essays.
[34] Gabriel Jars, Voyages Métallurgiques (Paris, 1781), 3, Douzième Mémoire, Section sur les fabriques de poteries d'Angleterre..., Années 1765-66, pp. 358-368.
[35] A. N. F 12 1559, 23 January 1808, Ollivier to the Minister of the Interior, report.
[36] Idem.
[37] Henry-Pierre Fourest, 'La Faïence Fine Française des Origines à 1820', Cahiers de la Céramique, du Verre et des Arts du Feu (Paris, 1969), No. 44, Introduction, (unpaginated). Also Alexandre Brongniart, Traité des Arts Céramiques ou des Poteries (Paris, 1844), Préface, p. XIII.
[38] A. N. F 12 1559, January 1808, Ollivier, report.
[39] Brongniart, Traité, p. 33. Ollivier is mentioned by Brongniart in connection with his contribution to high-fired ceramic wares. Also Maddy Ariès, La Manufacture de Creil (1797-1895), (Paris, 1974), pp. 67, 68.
[40] Ariès, La Manufacture, p. 68.
[41] Idem.
[42] A. N. F 12 1559, Fructidor An 6, François de Neufchâteau, mémoire, Moyens d'encouragement que le Gouvernement s'empressera de répandre sur le commerce, les manufactures et les arts. 'The means of encouragement that the Government will waste no time in passing on to trade, manufacturing and the arts'.
[43] A. N. F 12 1559; 1498 B, 1 Nivôse An 3, Houzé.
[44] A. N. F 12 2442, An 13, government policy.
[45] Idem.
[46] A. N. F 12 1559, An 9, Neufchâteau, mémoire.
[47] Idem.
[48] Idem.
[49] A. N. F 12 1498 A, An 8, Moitte.
[50] A. N. F 12 1559, An 5, Mayeuvre.
[51] Correspondence, April to May 1987, Christopher John Smith to Jacqueline Bonnet, Paris. Also A.-J. Tudesq et J. Rudel, 1789-1848 (Paris,1979), pp. 220-221. Under the Consulate, in 1801 and 1802 there were public exhibitions of the products of French industry. These took place in Paris, in the courtyard of the Louvre. This is perhaps why shards of creamware pots which figured in the Smith-Bonnet debate were found here in 1987.
[52] Ariès, Donation, p. 271, referring to Glot.
[53] Idem.
[54] A. N. F !2 1559, report by Picquet on Chamberlain.
[55] Idem.
[56] Idem.

[57] J. R. Harris, Industrial Espionage and Technology Transfer. Britain and France in the Eighteenth Century (Aldershot, 1998), p.125.
[58] A. N. F 12 1498 A, An 3, Espercieux. His report is entitled: Essay on the means of making our factories superior to those of England.
[59] Idem.
[60] Idem.
[61] Ibid., An 6, Espercieux. 'To make our manufactories superior to those of England.'
[62] Idem. 'The principles which guide English manufacturing.'
[63] Idem.
[64] A. N. F 12 1559, An 5, Mayeuvre.
[65] Idem.
[66] Ibid., An 6, Neufchâteau to Mayeuvre.
[67] Idem.
[68] Woronoff, La République, pp. 115-116.
[69] A. N. F 12 1498 A, An 8, Moitte.
[70] Idem.
[71] Idem. Gaye Blake Roberts denies that this was the case. Conversation with the author, 5 June 1997.
[72] A. N. F 12 1498 A, An 8, Moitte.
[73] Idem.
[74] Idem.
[75] Ibid., 1804-5, Bosc D'Antic and Lasteyrie, report on Oppenheim.
[76] Ibid., An 7, Leuillier.
[77] Idem.
[78] Idem.
[79] Idem.
[80] A. N. F 12 2442, An 10, Michaut.
[81] Idem.
[82] Idem. 'Since 1780 the English have all tried to destroy us with the products from their manufactories and potteries'.
[83] Idem.
[84] Idem. 'Goods are offered at the lowest prices'.
[85] Idem.
[86] Idem.
[87] Idem.
[88] Idem. 'It is too well-known, Minister, that the English Government is prepared to make the greatest sacrifices to discourage all competition with rival manufactures.
[89] Idem. 'The importation of fine English earthenware would be absolutely destructive to all the manufactories of English-style earthenware established in France'.
[90] Idem.
[91] Ibid., 4 Floréal An 10, Montaran to Michaut.
[92] Idem.
[93] Idem.
[94] Idem. 'It is without foundation, without motive and against all possibility that the Government should tolerate the importation of English faïence'
[95] Idem.
[96] Idem. '...impede a type of industry that has made so much progress'.

[97] Idem. 'The government is far from allowing anything undermine your industry and your zeal'.
[98] Idem.
[99] Ibid., Montaran to the Directeur général des Douanes nationales.
[100] Idem. 'the shops in Paris were filled with English pottery'.
[101] Idem. 'I cannot believe that something this important has not merited your full attention'.
[102] Idem. 'To be on an absolute alert as far as this was concerned'.
[103] A. N. F 12 1559, 10 July 1806, Jousselin. 'Essays on the general improvement of Pottery'.
[104] Idem.
[105] Idem. '...in the general balance of trade between nations'.
[106] Idem.
[107] Idem. '...even in the homes of farmers in our country areas.
[108] B. F. Faujas de Saint-Fond, A Journey through England and Scotland to the Hebrides in 1784 (Glasgow, 1907), 1, pp. 96-97, (trans. and ed, A Geikie.)
[109] A. N. F 12 1559, 10 July 1806, Jousselin. It was 'in use everywhere'.
[110] Idem.
[111] 'It took precedence over all other merchandise of this type'.
[112] A. N. F 12 1559, 10 July 1806, Jousselin.
[113] Idem. '...knows how to calculate the immense resources that this branch of commerce could offer'.
[114] Idem.
[115] Idem. From other sources, Josiah Wedgwood was disturbed by the claims of a Doctor Percival that his Queensware was dangerous to health because of the use of lead in the glaze. He worried that Percival would publish his findings and thereby damage sales of Queensware. The doctor later conceded that his criticisms had been too sweeping and did not publish his condemnations, much to the relief of Wedgwood. The Transcripts of the Letters of Josiah Wedgwood, 20 July 1773, L 8457-25, 21 August 1773, L84-25. Gaye Blake Roberts indicated to the author that Josiah Wedgwood and Doctor Darwin were aware of the hazards of plumbosis among pottery workers, 5 June 1997.
[116] A. N. F 12 1559, 10 July 1806, Jousselin.
[117] Idem.
[118] Jars, Voyages, pp. 358-368.
[119] A. N. F 12 1559, 10 July 1806, Jousselin. Also the Transcripts of the Letters of Josiah Wedgwood 1, October 1767, E 25-18170. Wedgwood expressed interest in the comte de Lauraguais' recipe for porcelain which the Frenchman was offering for sale in England in return for a partnership with an English entrepreneur.
[120] A. N. F 12 1559, 10 July, Jousselin.
[121] Idem.
[122] Idem. In the 1760s in England Josiah Wedgwood had been disturbed by the steady flow of quality, high-fired white ware that was coming from France. This was why he made serious attempts to perfect his creamware body which eventually became known as Queensware. Rodney Hampson, correspondence with the author, May 2001. Also, Transcripts of the Wedgwood Letters of Josiah Wedgwood 1, February 1776, L8652-25.
[123] A. N. F 12 1559, 10 July 1806, Jousselin.
[124] Idem.

[125] A. N. F 12 2442, 1810, Dumuys, La Charité.
[126] Idem.
[127] Another pottery entrepreneur in La Charité was forced to employ workers as young as twelve years old. Bernard Guineau, La Manufacture de faiences fines de la Charité-sur-Loire (Nièvre) (1802-1812) (Charité-sur-Loire, 1979), p.10.
[128] A. N. F 12 1498 B, An 3, Houzé.
[129] Idem.
[130] A. N. F 12 2442, 1810, Dumuys, La Charité.
[131] Idem.
[132] Ibid., 1803, Leuillier.
[133] Idem.
[134] Idem.
[135] Dictionary, XVI, p. 214, Potter.
[136] Idem.
[137] Idem.
[138] It applied to artisans and workmen who emigrated with skills and tools. See Josiah Wedgwood, An Address to the Workmen in the Pottery on the Subject of Entering into the Service of foreign Manufacturers (Newcastle, Staffs., 1783), passim.
[139] Harris, Industrial Espionage and Technology Transfer), pp. 552-553.
[140] Idem.
[141] Propriété industrielle, Brevets d'invention, 30 Frimaire An 11 to Christopher and Thomas Mills Potter.
[142] M.L. Solon, The Art of the Old English Potter (London, 1885), p. 260. Also Mademoiselle Chapard, Curateur, Chantilly, interview with the author.
[143] A. N. F 12 2442, Besson and Darcet, report on Christopher Potter.
[144] Maddy Ariès, Donation Millet (Sceaux, 1979), p. 11. Also Charles Floranges, Expositions Nationales et Universelles en France de 1799 à nos jours (Paris, n.d.), p. 26.
[145] SHAT, archives, Vincennes, 1 série, Prisonniers de guerre, list of cotton manufacturers. Potter is registered as owning factories in Montereau and St.-Quentin.
[146] Charles F. Binns, The Story of the Potter (London, 1898), pp. 217-229. Also David Drakard, 'A Report on the Seminar on Early on-glaze Transfer Printing', English Ceramic Circle Transactions, 15, Part 3, 1995, pp. 331-340.
[147] Solon, The Art of the Old English Potter), pp. 260-261.
[148] Ibid., p. 261.
[149] Binns, The Story of the Potter, p. 217.
[150] E. Stanley Price, John Sadler. A Liverpool Pottery Printer (West Kirby, Cheshire, 1948), p. 23.
[151] Ibid., p. 24.
[152] Idem.
[153] Idem. Abbey did not advertise in the directory in 1781. He had probably left Liverpool by this time.
[154] Idem. This was the Herculaneum factory. Abbey died in 1801 aged 81.
[155] A. N. F. 12 1003, July 1789, Potter to Tolozan.
[156] Ibid., application for an exclusive privilege, July 1789.
[157] Dictionary, XVI, p. 214, Potter.
[158] Desmarais sometimes appears as Desmarets or Desmarest in documents.

[159] A. N. F 12 1003, 22 July 1789, Berthollet and Desmarais.
[160] Idem. Berthollet and Desmarais, Report on the process of printing designs on pottery by Monsieur Potter.
[161] Claude-Louis Berthollet, Eléments de l'art de la teinture (Paris, 1791).
[162] Dictionary, XX, p. 963, Watt.
[163] Pierre Bonnassieux, Conseil de Commerce et le Bureau du Commerce, 1700-1791. Inventaire analytique des procès verbaux (Paris, 1900), Introduction, n.p.
[164] Harris, Industrial Espionage and Technology Transfer, pp. 341, 374, 385, 391, 412, 561.
[165] A. N. F 12 1003, July 1789, Potter.
[166] Idem.
[167] Idem.
[168] David Drakard, 'A Report on the Seminar on Early on-glaze Transfer Printing', pp. 331-340.
[169] A. N. F 12 1003, July 1789, Potter, Description du procédé.
[170] Idem.
[171] Ibid., Berthollet and Desmarais, Report on the process of printing designs on pottery by Monsieur Potter.
[172] Ibid., Brumaire, An 11, Potter to Chaptal.
[173] A. N. F 12 1003, July 1789, Potter to Tolozan, Intendant for Trade. Application for an exclusive privilege. Description du procédé d'imprimer (sur) porcelaine, fayance, poterie, tôle et bois vernissé par les Citoyens Potter, père et fils, ainsi qu'une autre matière qui soit par sa nature soit sa forme ne peut subir l'action de la presse. This application was sent on 26 Brumaire An 11 to Chaptal.
[174] Stanley Price, John Sadler, p. 24.
[175] A. N. F 12 1559, Jacques Bagnall, Creil; John Hurford Stone, Creil. Also Dictionary, XVIII, pp. 1300-1301, Stone.
[176] Legros d'Anizy worked at Sèvres and later formed a partnership with Stone and the latter's former associate at Creil, Coquerel.
[177] A. N. F 12 1559, 26 Brumaire An 11, Potter to Chaptal.
[178] Idem.
[179] A. N. F 12 1498.
[180] Ibid., 22 July 1789, Berthollet and Desmarais, Report on the process of printing designs on pottery by Monsieur Potter.
[181] Idem.
[182] A. N. F 12 1003, July 1789, Berthollet and Desmarais, report.
[183] Idem.
[184] Idem.
[185] Drakard, Transactions, p. 331.
[186] A. N. F 12 1003, July 1789, Berthollet and Desmarais, report.
[187] Idem.
[188] Idem.
[189] Idem.
[190] Idem.
[191] Idem.
[192] A. N. F 12 1003, July 1789, Berthollet and Desmarais, report.
[193] Idem.
[194] Idem.
[195] Idem.

[196] Ibid., 25 January 1790, Tolozan.
[197] Idem.
[198] Idem.
[199] A. N. F 12 1498 A, loi du septembre 1791.
[200] A. N. F 12 1007, 106, Stevenson, brevet d'invention.
[201] A. N. F 12 1003, Potter to Tolozan, application for an exclusive privilege, July 1789. Reviewed in Frimaire An 11, Potter to Chaptal.
[202] Drakard, Transactions , p. 333.
[203] 'Printing factories'.
[204] A. N. F 12 1012. Also, Maddy Ariès, La Manufacture , pp. 96, 97.
[205] Ibid., 30 Frimaire An 11, Chaptal to Christophe et Thomas Milles (sic) Potter.
[206] Ibid., 28 Pluviôse An 11, T. M. Potter to Chaptal.
[207] Ibid., 24 Nivôse An 11.
[208] Correspondence, Mademoiselle. Chapard, Chantilly, with the author.
[209] A. N. F 12 2442, Year 3, Potter.
[210] A. N. F 12 1559, January 1808, Ollivier. The Paillarts or Paillards are mentioned as potters who had trained under Ollivier.
[211] A. N. F 12 2442, 23 Brumaire An 3, Rapport sur la Manufacture de Faïence de Chantilly fait à la Commission d'Agriculture et des Arts, par les citoyens Besson et Darcet. Also, Henry- Pierre Fourest, 'La Faïence Fine Française des Origines à 1820', p. 203.
[212] A. N. F 12 2442, Besson and Darcet, report.
[213] Idem.
[214] A. N. F 12 1559, An 5, Neufchâteau.
[215] A. N. F 12 1498 B, 1792, Sturgeon referring to Turpin.
[216] A. N. F 12 2442, Besson and Darcet, report on the factory at Chantilly.
[217] Idem.
[218] Idem.
[219] Idem.
[220] Idem.
[221] Idem.
[222] Idem.
[223] Idem.
[224] C. J. Smith to the author, June 1992.
[225] A. N. F 12 2442, Besson and Darcet, report.
[226] Idem.
[227] Idem.
[228] Idem.
[229] S. L. Kaplan and C. J. Koepp (eds), Work in France. Representations, Meaning, Organization and Practice (New York, 1986), Introduction, Kaplan and Koepp, p. 19.
[230] Jacques-Louis Ménétra, Journal of my life. With an introduction and commentary by D. Roche (New York, 1982), passim.
[231] Michael Sonenscher, Work and Wages. Natural law, politics and the eighteenth-century French trades (Cambridge, 1989), pp. 22, 28, 295. Sonenscher talks of Jacques-Louis Ménétra and his 'seven years of work and travel as a journeyman on the "tour de France"' p. 22.

[232] Ménétra, Journal of my life, Commentary by Daniel Roche, p. 250. Roche states that there were 'nearly 500 schools in the city (of Paris) of various types and denominations'.
[233] A. N. F 12 1498 B, An 3, Houzé to the Minister of the Interior, report on pottery manufacture.
[234] Idem.
[235] Idem.
[236] A. N. F 12 2442, Besson and Darcet, report.
[237] Roche, Commentary, p. 250 in Ménétra, Journal of my life.
[238] A. N. F 12 2442, Besson and Darcet, report.
[239] Idem.
[240] A. N. F 12 1497, 21 September 1776, Observations des Maîtres Gardes sur la nature d'une Manufacture Royale.
[241] Roche, Commentary, p. 254 in Ménétra, Journal of my life.
[242] Ibid., p. 361. Commentary, note 21: 'Note that Ménétra's wife cannot sign the marriage contract, yet she is perfectly at home with the account books'. Also p. 298: 'He (Ménétra) does not know how to count...he does not want to count'.
[243] A. N. F 12 2442, Besson and Darcet, report.
[244] Idem.
[245] Idem.
[246] Idem.
[247] A. N. F 12 1003, 22 July 1789, Potter.
[248] A. N. F 12 2442, Besson and Darcet, report. 'Trained for the good of trade and the glory of the Republic'.
[249] Idem.
[250] Kaplan and Koepp, Work in France, p. 34.
[251] Ménétra, Journal of my life, passim.
[252] A. N. F 12 2442, Besson and Darcet, report.
[253] Idem.
[254] Fourest, Cahiers , passim. Annecy (Haute Savoie), 1800-1808; Choisy-Le-Roi (Val-de-Marne), 1804 till the present day; Creil (Oise), 1797-1875; Ferrière-la-Petite (Nord), 1798-1868; Forge-Les-Eaux (Seine-Maritime), 1800-1850; Le Havre (Seine-Maritime), 1802, closure date unknown; Longwy (Meurthe-et-Moselle), 1798, date of closure unknown; Nevers (Nièvre), 1795-1810; Rouen (Seine-Maritime), 1800-1808; Saint-Amand-Les-Eaux (Nord), 1801-1804; Sèvres (Hauts-de-Seine), 1798-1815; Toulouse et Valentine (Haute-Garonne), 1796-1835; Val-sous-Meudon (Hauts-de-Seine), c 1800, date of closure unknown. Queensware factories at Douai, Montereau, Chantilly, Paris (Ollivier),continued in production in 1800.
[255] A. N. F 12 2442, An10, Michaut to Montaran, Minister of the Interior.
[256] Ibid., Brumaire An 3, Besson and Darcet, report on Potter.
[257] A. N. F 12 1498A, An 8, Moitte to the Minister of the Interior.
[258] A. N. F 12 1559, 10 July 1806, Jousselin to the Minister of the Interior, Essays on the General Improvement in Pottery.
[259] For an example of English mocha see the Illustration entitled: English mocha c. 1790. This pot is in my private collection.
[260] Rodney Hampson, correspondence with the author, 25 May, 2001.
[261] Christopher John Smith, explanation of mocha and other slip-trail techniques, translated by the author, in Ariès, Donation Millet , pp.15, 41.

[262] Ariès, Donation Millet ,p. 15.
[263] A. N. F 12 1007, Stevenson.
[264] Idem. This law protected the rights 'of inventors in every area of industry'. Champagny granted Stevenson 'a patent certificate for the invention consisting of putting dendritic patterns on all kinds of fine earthenware'.
[265] Propriété industrielle, Brevets d'invention, 1 May 1806, Jean Stevenson. See the Illustration entitled: Engraving that accompanied the patent application of Jean Stevenson in May 1806.
[266] A. N. F 12 1007, Creil.
[267] Idem.
[268] Ibid., November 1806, Merlin Hall to Champagny, Minister of the Interior. 'These items were very fashionable and there was no reason why the factory should be deprived of this kind of merchandise because of the so-called patent certificate granted to Stevenson'.
[269] Idem. 'He was only shown the technique so that he could have a means of existence because I could not employ him in his capacity as a turner. He had come to ask for work in this area'.
[270] Ariès, Manufacture , pp. 22-23. There were twelve shareholders. Each had invested 20 000 francs.
[271] A. N. F 12 2442, John Stevenson, La Charité.
[272] Ibid., February 1809, references to documents from the Bureau des Prisonniers de guerre at Vincennes. This was the Service de l'Histoire de l'Armée de la Terre under the jurisdiction of the Minister for War.
[273] A. N. F 12 1007, An 9.
[274] A. N. F 12 1559, Bagnall, Creil.
[275] A. N. F 12 1497, 'arrêt', 15 May 1775.
[276] Aimé-Houzé de l'Aulnoit, Essai sur les Faïences de Douai dites grès anglais (Lille, 1882), p. 132.
[277] Keele University, The Wedgwood Manuscripts, Etruria and Liverpool, 3, E 30-22321.
[278] A. N. F 12 1007, Stevenson.
[279] For examples of the mocha produced at Montereau and Creil see the Illustrations entitled: Montereau mocha c. 1806 and Creil mocha c. 1806. These pots are in my private collection.

Chapter 7

The Transfer of Technology in a war economy.

7.1 Introduction.

The theme of this chapter is the transfer of technology within the context of a war economy after 1793 till the end of the Napoleonic era. English workmen and managers continued to implant the manufacture of Queensware in France with success and apparent lack of impediment to their activities. English techniques of decoration maintained the standards of quality that had come to be associated with English Queensware in France. The question is just how this was achieved in an almost continuous context of war when French citizens were subject to supervision and restriction in their movement.

On 2 Prairial An 11 Bonaparte issued a 'décret' which had an immediate effect on the status of English nationals who were in France at that time.[1] All English males between the ages of 18 and 60 were categorised as hostages of the French Government. Designated as 'prisonniers de guerre', regulations and restrictions were applied to the freedom and mobility of every English worker, visitor or resident.[2] This 'décret' involved a more detailed application than the retaliatory measure of 1793. Then the similar terminology of 'prisonnier de guerre' had been used with reference to every English national in France, whether male or female.[3]

Lists of Englishmen residing or working in France had been drawn up before 2 Prairial. An additional office in the Bureau des Prisonniers de Guerre under the control of the Minister for War had been set up to deal with the extra workload that

the 'décret' would bring.[4] The lists appear sketchy and incomplete, but they were added to in the ensuing years.[5] In a highly confidential document, the Minister for War informed the Minister for the Navy that there were 500 English hostages within a total of over 12 000 English prisoners in French 'dépôts'.[6] There were probably many English workers who avoided this head count and who continued to remain outside bureaucratic statistics till the end of the Napoleonic era.

What is written in this section derives from a general sense of what is going on with the full range of English workers and entrepreneurs.[7] The actual details about workers in the pottery industry that have so far been located are limited. These include information found in the Ministry of War Archives at Vincennes, in the files of the Service Historique de l'Armeé de la Terre, SHAT. There are, however, other sources that provide more data. The Archives communales reveal that the SHAT files are incomplete in the sense that they do not duplicate all local or regional lists of workmen.[8]

Several hostages were well-to-do travellers who had been engaged in the fashionable pastime of touring France. Some were English expatriates who resided in France and were affronted to be counted among the 'prisonniers de guerre'.[9] Others were English manufacturers who were in France with samples of their goods. After 1803 manufacturers and dealers continued to penetrate the French borders with their illegal goods and were sometimes arrested and their goods confiscated. The rest of the hostages were, for the most part, craftsmen who were involved in French industry.[10]

Many were textile workers in the cotton, spinning and net industries. There were several of these factories with English workers and English entrepreneurs.

Individuals who were heavily involved in other industries such as pottery also appeared on the lists that dealt with textile factories. Christopher Potter is to be found on a list which indicated that he was a cotton manufacturer in Montereau and St. Quentin. Bagnall, his manager at Chantilly who later moved on to the Queensware factory at Creil, also appeared as a proprietor of a cotton spinning concern at Creil.[11] There is no mention here of them being involved in the manufacture of Queensware.

As yet, a comprehensive list of English potters has not been located in the archives of the Service Historique de l'Armée de la Terre. Francis Warburton, John Stevenson, Michael Willis, Pierre Guichet, Leigh and Macarthy, potters who specialised in the manufacture of Queensware or mocha at a later date, appeared on a list, probably because they had just arrived from England in 1802.[12] Apart from Macarthy, they were later involved, together or separately, in Creil, Montereau, La Charité and Chantilly where English Queensware was manufactured. Two of them were also connected with the concern at Tournus. Leigh had been at Douai till 1796.

Thus, there are few references to potters in the SHAT files. The Archives communales afford more information on 'prisonniers de guerre' in specific towns. There are isolated references to potters being 'prisoners' in the industrial files at the Archives Nationales.[13] So far there is no indication that Jacques Bagnall or Christopher Potter were on a list as 'otages' involved in pottery production after 1803. Perhaps it sufficed that they appeared on one list, the one that dealt with cotton manufacturers. Cotton production was the more important of the two

industries. There were also far more operatives involved in this branch of manufacturing.

Although Potter had sold his interest in the Chantilly factory in 1802, he had already set up another Queensware manufactory in a former Recollets convent in Montereau and had operated there from 1797.[14] His production here won prizes in the national trade exhibitions.[15] Although he relinquished the lease of this Queensware factory after three years, he maintained other manufacturing interests in the town. As he had been granted a patent for his developments in transfer printing, he was no doubt still operating in this area.[16] He was also involved in cotton production at Montereau and St. Quentin.

Perhaps Potter and Bagnall had been given reliable ministerial advice that cotton and spinning manufactories would merit continued French government interest. During the Peace of Amiens English workers were expected to come to France. English factories and English employers would attract this immigrant workforce.

Elsewhere it has been noted that the majority of loans from the Government to French industry had gone to French cotton and cloth manufacturers, not always with felicitous results.[17] The English input of skilled labour was needed. Here was an opportunity to be exploited. Potter and Bagnall had done so.

Napoleon regarded the promulgation of the décret du 2 Prairial primarily as a political measure. It was calculated to encourage the English Government to respect the well-being of French prisoners of war in England. This had been stated in a letter from the Minister for War to the Minister of Police.[18] It had made clear that craftsmen were included:

au nombre des anglais qui servent de garantie de la conduite du gouvernement anglais envers nos prisonniers.[19]

It was not a move in retaliation for the failure of the 1802 peace treaty. This had given the French forces respite and had allowed French industry to consolidate the advantages that the Government kept emphasising. An opportunity had also presented itself to Bonaparte. There were influential English visitors still in France whose welfare would be of some interest to the English Government. With these 'otages' Bonaparte intended to hold the English authorities to ransom.

He did not intend to subject these upper-class prisoners to undue pressure. They were generally granted the status of 'prisonniers sur parole' which entitled them to live outside the camps in their own lodgings, paying their own household expenses. These privileged prisoners were permitted to transfer money from England from their families or from their bankers. They maintained the style and way of life that they were accustomed to. Some even obtained credit or ran up large bills with local tradesmen.[20]

The English workers and manufacturers who also found themselves in the unexpected role of 'otages' were viewed in a different way. As many of them were skilled specialists, they were accorded dispensations such as 'cartes de sûreté' like other French workers. Ménétra, glazier and commentator on the eighteenth century, carried a 'carte de sûreté' as he continued to ply his trade.[21] Sometimes English workers were issued with 'cartes de hospitalité' if they had been in France for some time before 1803. Some English workers, usually entrepreneurs like Potter, Bagnall and Warburton were granted the status of 'prisonnier sur parole'.[22]

Workers also needed 'livrets' which enabled them to work and enjoy some degree of mobility as operatives. These were like passports and were to be carried at all times. Permission had to be obtained from the Minister for War if they wished to visit the areas in France that were restricted by the Government, namely any coastal town or Paris.[23]

Archives show that some English workers were 'removed' from the Prairial lists. This 'radiation' did not mean that their status was altered or that they were free to move from place to place in an unsupervised manner. They remained 'otages'. It did mean, however, that they did not have to register at frequent intervals with their local Bureau des Prisonniers de Guerre. It usually indicated that these workers were of special use to the French Government and were often involved in government projects.

William Oppenheim, a potter and entrepreneur originally from Birmingham, figured in correspondence involving his 'radiation' from a prisoner-of-war list. This took place between the Minister of the Interior and the Minister for War and allowed Oppenheim the freedom to develop certain aspects of English technology in French factories.[24] He later wrote a book about transfer printing on fine earthenware and porcelain.[25] Christopher Potter may well have been trying to protect his patent against Oppenheim in Year 11.[26]

Some of the English workers on the Prairial lists were permitted to continue their work in French industry. It was pointed out at ministerial level that this was why they had come to France in the first place. Chaptal, as Minister of the Interior, was highly critical of the heavy-handed actions of the officials involved in regulating and updating the Prairial lists. They were often excessively rigorous in applying the

letter of the law and Chaptal was forced to intervene and intercede on the behalf of English workers and entrepreneurs.[27] It is highly likely that he been instrumental in bringing some of them to France in the first place. Writing to the Minister for War, he criticised the lack of industrial strategy involved in keeping skilled English workers away from the manufacturing concerns that so desperately needed their expertise.[28]

> Vous deviez craindre, Citoyen Ministre, que l'exécution des measures prises contre les anglais qui se trouvent en France, quelques-uns de vos agents ne mettent trop de précipitation, trop de rigueur et n'aillent au delà du but que le Gouvernement s'est proposé. Ainsi aux malheurs que la guerre maritime fait éprouver à nos fabriques en fermant les débouches qui servaient à l'écoulement de leurs produits, on ajoute l'interruption de leurs travaux par l'enlèvement des ouvriers dont elles ont besoin'.[29]

He argued that the continuing hostilities with England were damaging to French commerce. The last thing that French industry needed was to have further obstacles placed in its way. French technology needed English expertise and English workers.[30] They were in France to further the development of French industry and not to waste their time in detention centres or punishment camps. The Minister for War did not always yield to the wishes of his ministerial colleague. This happened in the case of an English Queensware manufacturer.[31]

The restricted areas were forbidden to foreign nationals. Infractions of this ruling resulted in stays of indeterminate length in punishment centres like Bitche. Other misdemeanours such as open criticism or public ridicule of Bonaparte also earned

detention in Bitche.[32] English entrepreneurs like Christopher Potter negotiated with the French authorities to have English workers in Bitche released for service in French factories.[33]

There were several cotton manufactories in France during this period and skilled workers were at a premium. Thus many of the English workers remained in employment. This was also the case with the few potters that have so far been identified on the Prairial lists and the archival industrial files. They moved from one Queensware concern to the other and were given government permission to do so.[34] The Archives communales substantiate this.[35]

When Napoleon first issued the decree, English residents on each municipal list were notified within forty-eight hours of 2 Prairial that their status had been changed. After this official notification, additional categories and classification came into play as names were 'removed' or workers further assessed as to usefulness. As a general rule, the English hostages were instructed to make their way to government assembly points like the one in Fontainebleau. Then they were told to report to official 'dépôts' at Valenciennes or Verdun. There were other camps and centres all over France in: Arras, Auxonne, Bitche, Briançon, Cambrai, Givet, Longwy, Mont Dauphin, Sarrelibre and Sedan.[36] Prisoners were also held in other places: Amiens, Besançon, Metz, Nancy and Rennes.[37]

Their wives and families were not technically 'prisoners' or 'hostages' but were naturally affected by what happened to their spouses or fathers and eventually moved with them to the designated centres. There are instances when wives were treated as 'hostages' and refused permission to return to England when their husbands died. In the camps the 'prisonniers anglais' were provided with basic

lodgings and food at government expense. Few workers practised their trade in the camps. This was not government policy. Bonaparte did not wish to set precedents for French prisoners in England.[38]

The whole issue of the décret du 2 Prairial poses several questions about the presence and status of English workers in France. One of the first is how did English workers continue to penetrate French borders and arrive in English factories in France after 1793? Patently there should have been no industrial intercourse in a war situation. The next is how did it come about in 1802 that English workers and master craftsmen arrived in France even before the Treaty was signed? Did they have inside information about what was going to happen? Equally compelling is the question why manufacturers arrived during the Peace of Amiens itself? Had they already been selected and propositioned for recruitment before 1802 so that their arrival in France was effected as promptly and as efficiently as possible? Finally, what effect had this 'décret' on the transfer of English technology to the French Queensware industry?

7.2 English potters in France after 1793.

The fact that Englishmen became 'hostages' or 'prisoners' after the décret du 2 Prairial An 11 brings more sharply into focus an earlier situation when the French Government had 'imprisoned' all English visitors and residents in France, both male and female. This had occurred in 1793. English nationals had become 'prisonniers de guerre' and had found themselves detained in different parts of France. Christopher Potter had been confined in Beauvais.[39] John Hurford Stone had been imprisoned in the Palais de Luxembourg.[40] Stone was a future partner in the Creil Queensware manufactory and co-owner of a transfer printing factory in

Paris in the 1800s. From 1793 onwards England was at war with France except for the break in hostilities during the Peace of Amiens.

The number of English potters was small and their relevance to the war effort limited. There were also workers who had not obeyed administrative procedures and who remained undetected.[41] Sometimes French employers in other industries colluded and continued to employ English workers without informing the authorities.[42] All this was not too serious provided the factories were not in Paris or located in coastal towns. These were prohibited zones for foreigners. Sometimes local authorities did not pass on lists of useful workers to the Bureau des Prisonniers de Guerre.[43] These omissions were detected later and explained as follows:

> Ils n'avaient pas été compris dans les Etats précédents, parceque les autorités civiles qui étaient d'abord chargées de ce travail, avaient omis de les y comprendre, ainsi que plusieurs autres, par le désir de les conserver à raison de leur utilité, et à cause de leur longue résidence en France.[44]

Missing from the SHAT lists are the English workers at Chantilly and Creil. In a earlier government report it had been stated that Christopher Potter had ten English workers at the Chantilly factory.[45] After the declaration in 1793 that all English nationals found in France were 'prisonniers de guerre', many English citizens found themselves detained or imprisoned.[46] When the initial bureaucratic excesses had been rectified and the English residents and workers had been allowed to get on with their everyday lives, craftsmen continued to be constrained in their movements.

Christopher Potter was responsible for his English workers at Chantilly.[47] It was his job to report every few days to the town hall in Chantilly on behalf of himself and his workmen. These Englishmen included: James Bagnall, aged 33, Joshua Bell, John Hotzen, Thomas Knox, aged 36, William Merchline, James Metcalfe, John Paterson, aged 44, John Rouns and George Wood. This was in 1793 and 1794.[48]

James Metcalfe was a card maker by trade but had worked with Christopher Potter for some time. Through Metcalfe there were probably links with the linen or cotton industry which could be exploited later. In 1793 Metcalfe was training French apprentices including one called Esterne who requested permission to leave in Year 3. No reasons are given for this request.[49]

George Wood was the manager of the factory and men were employed on his recommendation. Wood was married to Elizabeth Bagnall, the sister of James Bagnall.[50] Around 1800 Wood left Chantilly and worked at Montereau.[51] It is not clear whether this was at Potter's factory in the Recollets convent or the Merlin Hall establishment.[52] Then he moved to Forges-Les-Eaux where he set up a Queensware factory on his own account. When he died in 1811 his widow married Ledoux, the foreman at Montereau which had combined with Potter's factory under Merlin Hall. The establishment at Forges-les-Eaux continued under the name of Ledoux Wood.[53]

James Bagnall had left Stoke-on-Trent in the 1780s for France.[54] This was during the period when the Leighs and Bris were recruiting craftsmen from the Potteries for the Douai factory.[55] He had married a Frenchwoman, Isabelle Catherine Jane Danès. When widowed in 1823 she moved on to Choisy-Le-Roi where the Paillart

brothers had established another Queensware factory in 1804.[56] It was probably after Wood had left that Bagnall had become the manager of the factory at Chantilly.

There is no mention in 1793 in the Archives communales in Chantilly that certain foreign workers who had been in Chantilly in 1792 still worked there. These included Pierre Adam, Wela Benjamin, Fisher, John Mac Cloud, Sharnatt and Sturman. Perhaps these were apprentices and did not require to be registered as prisoners-of-war. John MacCloud was fourteen years old.[57]

In Year 3 of the Republic there were additional workers at Chantilly: Carnegie, Will Stevenson and James Wright. Carnegie had also worked in porcelain. Stevenson had been employed on the recommendation of Wood.[58] It is not known at this stage whether there was any family connection between Will Stevenson and John Stevenson who arrived with Warburton in 1802.[59]

In Year 4 James Leigh was in Chantilly with his wife Anne Perry.[60] He later turned up in Montereau in the cotton manufactory there.[61] In Year 5 Thomas Armefield appeared on the Chantilly list. He had connexions with a pottery concern in the Haute Marne region. He came with his French wife and family. Other English potters who were in Chantilly in Year 5 were Francis Boot, aged 24 and his brother Louis Ferdinand Boot, aged 33.[62] In Year 12 the latter married Marianne Pètre. He did not stay in Chantilly but moved on to Montereau where he worked for nearly thirty years.[63] Whether his brother accompanied him is not known.

In 1803 Bagnall left Chantilly and took thirty skilled Queensware workers with him to the Creil establishment.[64] His reasons for decamping are not recorded. The fact that the factory was under new ownership and the Prairial decree was in force

certainly had some influence. There is no hard evidence to say that these workmen were all English but they must certainly have included some of the trusted English operatives who handled all the crucial functions in the production process, from mixing the bodies and glazes to the firing schedules.[65]

As has been mentioned, these SHAT lists were not exhaustive. Names of potters and manufacturers are missing. The reason could be that the men in question had been in France long before 1803. This also applied to Potter and Bagnall yet they were still listed. William Oppenheim was mentioned in inter-ministerial correspondence and was 'removed' from the list of 'prisonniers de guerre'.[66] He did not appear on the SHAT list. He worked for the Government on different projects and would later write about pottery.[67] It is likely that he came to France in 1802 to set up English-style industrial concerns, including pottery.

Another potter who was mentioned earlier but who also did not appear on the SHAT pottery list was Chamberlain. As early as 1789 he had petitioned the Government for financial backing in industrial ventures that involved English methods.[68] He was still in Honfleur in 1810 and was the owner of a vitriol factory. There is no mention of pottery in this source.[69] Supplying the munitions industry was more lucrative than manufacturing peat-fired earthenware.[70]

The SHAT archives indicate that the situation for some immigrant potters and 'hostages' was uncertain and problematic. Shortly after his arrival in France, Francis Warburton had set up a Queensware factory in La Charité. More will be said about this endeavour later in this chapter. It has been suggested, however, that some success had been achieved before financial difficulties had caused problems.[71] While still employed in La Charité, Willis, Guichet and Warburton had

petitioned the prefect of Nièvre for passports out of the district. This was in Year 12.[72] There is no mention of Stevenson so he had already moved on to Montereau where he acquired skills in mocha decoration.[73] Later, as has been seen, Stevenson worked at Creil and developed his decoration techniques.[74]

The prefect passed the petition from the English workers on to the Minister of Justice who said it was the responsibility of the Minister for War.[75] The English potters wanted to move out of La Charité to find ways of earning a living. In Year 12 Michael Willis was at Chantilly and Pierre Guichet was at Tournus in the Saône et Loire department. Warburton did not find work or industrial opportunities in Tournus or Chantilly and requested a passport to travel around France.[76]

The Archives communales in Chantilly indicate that later in Year 12 the following English workers were in Chantilly: Thomas Farguetal, Pierre Guichet, mechanic, Noakes, Francis Warburton, mechanic. Hunt, an Irishman from Cork, was also listed. Later James Robinson and Richard Thomas were also registered. Robinson had some connection with Wood who was in Forges-Les-Eaux by this time.[77] Richard Thomas turned up later at Montereau. He was married to Anne Gibb and they ran an English manufactory there. Warburton was given the designation of 'mechanic'.[78] This implied technical skills beyond that of a potter which might effectively have found him employment.

There are questions which present themselves. Just how did the English workers arrive in the potting centres? Were some of these workers already in France? How did they manage to circulate from factory to factory? Did they all have passports and 'livrets'? Were they being 'managed' and 'allocated' by French or English middlemen? Were their skills interchangeable in different industries?

The French had argued for years that the English were skilled at smuggling goods into France. This had been an issue assessed by Calonne before the Treaty of Commerce of 1786-7.[79] It had been debated in 1789 in the National Assembly.[80] Smuggling had also been discussed in many 'mémoires' from potters to the Government.[81] 'La perfidie britannique' referred to this particular English activity.

There is no hard evidence, but it is possible that the same routes and the same kind of vessels that brought English manufactured goods clandestinely into France could also have delivered English workmen with little risk of detection. The numbers involved were not great and the infiltration would have been sporadic. The hypothesis is that the workers slipped into France as ordered for specific manufacturing enterprises.

In Year 3 Christopher Potter had ten English workers at his factory in Chantilly, most of whom had been with him for some time.[82] Earlier, in 1793 he had employed nine English workers.[83] When his manager, James Bagnall, left Chantilly in 1803, after the takeover by the Paillarts, he took thirty skilled workers with him to the Queensware factory at Creil.[84] Thus twenty more specialist workers had congregated in Chantilly under Potter and Bagnall.

As has been seen from the Archives communales, English workers were in Chantilly and then turned up in other English Queensware factories. Some like Warburton, Guichet and Willis had only recently arrived in France. Others had been in Montereau or in Tournus, a name that appears after 1803. Guichet was employed there and Warburton tried to find a position in this factory.[85]

It is unknown whether the additional workers at Chantilly had been in France before 1793 or had arrived since Year 3. Potter had indicated to Besson and

Darcet that he wished to develop his business by building new premises. To expand he would have needed more staff and certainly more skilled English craftsmen. This suggests that after Year 3 he had brought more workers to his factory at Chantilly where he had been forced to remain because of financial strictures. He could have recruited them from different places in France. He could equally have enticed them from England. How many of them were English is not known. Bagnall, at any rate, took the best with him to Creil in 1803.

It appears that it was possible to arrive in France without being intercepted by the English or by the French authorities. It is recorded that an English worker had taken passage in an English fishing boat, landed on the French coast and then made his way inland.[86] Bacon was an escaped English prisoner who had been confined for expressing seditious views that were pro-French. His political convictions encouraged him to break the English law further by taking his skills as an artisan to the enemy.[87] We know that in peacetime there were recruiters in industrial centres or factories in England. They were ever alert to spot any potential worker for French factories. The proceedings of the Stafford Assizes attest to this on two occasions.[88] Perhaps there were recruiting agents who targeted the disaffected English workman, especially the politically dissatisfied who had reasons to leave England.

Manufacturers and workers did find ways to enter and leave France. Some used foreign vessels.[89] There is an instance of a worker who had come to France for political reasons.[90] He apparently already had a destination and a contact. When this same worker later fell foul of the French authorities he was rescued from custody by an English manufacturer in France. This was Christopher Potter.[91]

The question is how did this cotton worker travel from the coast to Montereau or to St. Quentin where he is recorded as having worked, without the necessary papers?[92] How did Potter know to bail him out of Bitche? What influence did Potter, an English manufacturer and also a 'prisonnier de guerre', have to be able to negotiate the release of a troublesome English workman and give him a job in his own factory? If this had happened in the Ancien Régime, the implication would have been that the businessman in question was a 'manufacturier royal', with special privileges and the protection of the Government. He might even have been a member of the Factory Inspectorate. By analogy, this incident hints at an influential role played by Potter behind the scenes in the organization of English manufactories in France before and after the Prairial decree. English personnel was probably his speciality. There is, however, no hard evidence.

The emigration of skilled English workers and artisans was illegal.[93] In addition, apart from a short time in 1802-1803, France and England were at war so this emigration and transfer of technology were treasonable. The numbers of English workers were never large and archival accounts of how they arrived in France are rare. The fact remains that there were English craftsmen and manufacturers who were willing to take the risk of offering their services to the French. The question is whether this was on an 'ad hoc' basis or whether the recruitment was coordinated behind the scenes by some form of industrial espionage? Was the French Government once more involved? Were English manufacturers in France using their connections in England to suborn and enlist the services of skilled craftsmen in industries that the French authorities wished to develop? These are some of the questions that need to be addressed even if the answers are not conclusive. Further research presses.

7.3 The Treaty of Amiens and English manufacturers.

With regard to the Peace of Amiens, did Neufchâteau know more than he was admitting to his 'préfets' when he talked of the English workers that would come to France in 1802 to enjoy the more liberal political climate?[94] Given his penchant for collecting statistics, did he actually have a list of potential manufacturers who had responded positively to clandestine French overtures to set up their own factories in France? As yet, no such list has come to light but the archives do reveal that English manufacturers had been contacted prior to 1802.[95]

A manufacturer who had responded to the offers made by the French authorities declared that he had come to France:

sur invitation faite par le gouvernement français à tous les fabricants étrangers sans exception.[96]

These offers of industrial opportunities had been outlined by Chaptal and promises made in certain cases.[97] It had been suggested that English factories would be established in France, probably with government backing. It is unlikely that the French State would have provided financial incentives although Neufchâteau had told his prefects that the money not spent on the war effort would be available for industry.[98] Appeals were made to encourage investment within specialised industrial development. Different types of production were targeted.

Managers or manufacturers were offered greater autonomy in new factories. Government loans were available in the purchase of premises. The 'biens nationaux' offered ample opportunities all over France for enterprising manufacturers.[99] The kind of entrepreneurs that were contacted seem to have

been reputable manufacturers of quality products, with experience in running their own factories in England. They also brought sufficient funds to establish their new business in France. Certain of them brought key workmen with them and had already shipped machinery and equipment to France before their arrival.[100]

English entrepreneurs, in correspondence with French Ministers after the décret du 2 Prairial, referred to the general invitation that the French Government had extended to targeted manufacturers.[101] To their dismay, in 1803 these Englishmen found themselves on the Prairial lists with all the attendant restrictions and problems. With persistent petitions they had reached the Minister of the Interior who then pleaded, with some degree of success, on their behalf with the Minister for War.[102] This was not what they had expected when they had come to France. No one had mentioned that they would become 'hostages' or 'prisoners'. Their political naivety was at variance with their business drive and ambition.

There is little indication that many of these manufacturers wanted to return home. The uncertainty of what awaited them must have had some influence on their resolutions. The provisions of the 1719 and 1750 statutes that dealt with the enticement and emigration of workmen and manufacturers were known.[103] Manufacturers like Wedgwood had made sure of this by publishing the details.[104] Some manufacturers did go home but there is no hard evidence that they encountered problems or had punitive measures exacted against them in England. The statutes regulating their return, were according to John Harris, 'virtually inoperative'.[105]

The French authorities, however, had a different perception of the situation. The legal implications may not have affected manufacturers as stringently as skilled

artisans. In a time of war, the English State viewed emigration as criminal and treacherous. Marchant de la Houlière had pointed this out years earlier when he convinced the French Government that an English ironmaster should be enticed to France.[106] It was more politic to emigrate when Anglo-French relations were peaceful:

> S'il survenait une rupture avec l'Angleterre, avant qu'il fut en France il ne pourrait s'y rendre, sans être proscrit et coupable de félonie, au lieu que s'il l'avoit fait en temps de paix, par la liberté anglaise, il serait autorisé à suivre un marché dont dépendrait sa fortune.[107]

Many English entrepreneurs found that they had little choice but to accommodate the vagaries of the French bureaucratic system, sometimes with the help of the Ministry of the Interior. Inclusion on the Prairial lists must have been particularly galling. One Englishman, a manufacturer of repute, had been contacted quite some time before March 1802 when the Treaty of Amiens was signed. He had sent machinery ahead and had arrived with his family in February 1802. Thanks to the intercession of Chaptal, his privileged treatment was renewed and he was able to operate his business almost normally although he did remain an 'otage'.[108]

From the Archives départmentales it appears that English workers and entrepreneurs could reach French ports with apparent ease. Indeed, one individual moved on a regular basis between England and France. He made frequent trips to visit his French wife although he preferred to remain domiciled in England. The files show that she registered several births in the name of her English husband.[109] Perhaps this is testimony to the persistent, evasive skills of

one individual. English and French authorities could be avoided or manipulated with equal finesse and regularity on a long-term basis.

Another instance in the files of the Service Historique de l'Armée de la Terre indicates that even older English 'hostages' could slip from French surveillance and return to England as could their offspring.[110] One particular manufacturer who felt that he had been duped into coming to France during the Peace of Amiens indicated his displeasure by going home after unsatisfactory bureaucratic wrangling with the French authorities.[111] The porous coastline and borders of France still enabled the determined visitor or escapee to evade detection. There was probably an elaborate and long-standing network of routes between France and England. All that was required was sufficient cash or the right connections.

Another interpretation of the facts is also possible. The English workers came and went as the French Government pleased. If the worker was valuable to French industry then he was carefully detained.[112] If his efficacy were dubious or marginal, as in the case of the older man from Birmingham, then he was 'allowed' to slip through the net.

The question of the transfer of English technology had never been subsumed by political or military hostilities. Industrial espionage had not been effaced as might have been thought. English goods still presented a threat to the French manufacturers.[113] Smuggling had persisted. 'Anglomanie' had continued to dominate French markets. The Government knew from past experience that the remedy for French industry lay in the infusion of English technology with its working 'secrets'.[114]

Chaptal was instrumental in continuing a policy of French industrial espionage in England. He had contacted English manufacturers and promised them French industrial hospitality.[115] He had doubtless also continued to rely on the offices of the French Ambassador in London. Marchant de la Houlière had stressed this ambassadorial role in the enticement of manufacturers.[116] Chaptal must also have employed industrial experts in France who knew about English industry and the latest innovations that could be of use to the French manufacturer.

Neufchâteau, Montaran and Chaptal had individual ways of addressing the problems besetting French industry. Neufchâteau believed in the usefulness of industrial statistics, their compilation and collation.[117] He also promoted the development of French manufacturing through competitive industrial fairs and promotional newspaper articles on industry.[118] Montaran campaigned for effective and adequate loans to French industrialists.[119] Chaptal, the scientist and technocrat, appreciated English technology in much the same way as Trudaine had done in earlier decades.

As Minister of the Interior he advocated the assimilation of English methods and manufacturing techniques. This was particularly true if the industry involved was imitating an English product. In a passage that has already been cited more fully,[120] he debated the efficacy of earlier technology transfer. Machines and procedures were not enough. There was so much more to learn. The 'tours de main' involved in transferring any technology were crucial:[121]

> Nous avons fait tous nos efforts pour nous en approprier la fabrication, la filature par mécanique, la quincaillerie, les cotonnades, la draperie légère, tout est devenu à la fois l'objet de notre ambition: mais en

> important les machines, en s'appuyant sur quelques procédés transmis, a-t-on pu croire avoir naturalisé ces arts difficiles dans toutes les parties? A-t-on cru posséder ces details immenses, ces *tours de main* ces habitudes qui sont l'âme de l'industrie?[122]

Skills on the shop floor were what mattered and Chaptal knew this. He realised that French industry needed English workers if it was to grow and develop. How these craftsmen were located and then recruited is not clearly delineated. Nor is there any government blueprint on improving French industry in 1802. Successful precedents, however, had been set governing French industrial espionage in England. The fact that the two countries were at war had not been a hindrance in earlier instances of the transfer of English technology.[123]

Government industrial files indicate that Trudaine,[124] Alcock,[125] Holker[126] and the Leigh brothers[127] had already been involved in transferring English technology. This included, among other things, an espionage network of industrial contacts in the English workplace. These contacts could remain thinly scattered in each manufacturing discipline that the French wished to emulate. A few key contacts would suffice. What was also required was the financial backing from the French Government to entice the skilled craftsmen.

Perhaps this is what Neufchâteau meant when he talked of funds being available for industry.[128] Entrepreneurs in France, be they English or French, would also be involved in this industrial espionage. They would be engaged by the Government to employ the English workmen that would be contacted in England. They 'ordered' the kind of workers they required for their enterprises. They always needed good English workers who would then train their French workforce.

When the French prisoner-of-war camps were in operation, French manufacturers petitioned the Minister of the Interior for the release of English workers.[129] The Minister then argued the case with the Minister for War. In rare instances, Napoleon countermanded the ruling of his Minister for War and permitted English workers to operate within the French industrial system more freely.[130] Sometimes specific skills were head-hunted. When the requisite level of expertise was found to be lacking in the 'dépôts' of hostages, soldiers who were prisoners were requested and seconded to French industrialists.[131] This happened in the case of some men in the captured Irish Legion.[132] The views of these were not recorded.

As a corollary, if French industrialists 'shopped' for the talent and skills that they needed in France, they had also perhaps 'ordered ' what they wanted from England through some French 'agency'. We cannot be certain that this happened but the incidence of the Wedgwood employee replying to an 'advertisement' from a French employer lends credibility to the theory.[133] The question is whether there was an 'agency' in operation in 1802 and 1803?

As regards the enticement of workers in England, John Harris had long argued that the French never suborned the very best workmen to take their skills to French factories.[134] A first-class craftsman in England had too much to lose in professional as well as legal terms to leave England for monetary inducement. To emigrate during the Peace of Amiens was a significant undertaking, especially if wife, family and key workers were also involved. The reason behind any decision to emigrate to France had to be a telling one. Sometimes bankruptcy and financial problems made foreign challenges attractive. This was, after all, one of the possible reasons why Christopher Potter had arrived in France in 1787.[135]

Sometimes other problems of a personal or political nature forced English entrepreneurs or workers to seek their fortunes with the French.[136]

An example of an Englishman who had come to France after adverse political and judicial experiences was William Stone, the brother of John Hurford Stone. John Stone was an early shareholder in the Creil factory and was later a partner in a transfer printing factory in Paris. He and his associates took out patents and improvements on the Potter patent. His brother, William Stone, had been tried at the Old Bailey in 1796 for:

> Treacherously conspiring with John Hurford Stone, now in France to destroy the life of the King and to raise a rebellion in his realms.[137]

William Stone's decision to leave England was during a time of war. He nonetheless managed to reach French shores and found employment with other expatriates. Perhaps his motivation was stronger than most but he apparently had no difficulty in reaching his brother in Paris. This may of course be the answer. His brother was a technocrat and entrepreneur who was of use to French industry. The suggestion is that the French authorities knew who was coming from England and 'accommodated' or impeded as the 'usefulness' of the English worker was assessed. Value could be apportioned in political as well as industrial terms.

The decision made by the English worker to emigrate was legally a final one unless he returned to England within six months. If he disregarded the admonitions of English consular staff, he then incurred fiscal and legal penalties which were not to be disregarded. Losing English nationality and the protective supervision of English sovereignty was also to be taken into the balance.[138] It has been argued that the kind of workers that were most likely to end up in France

were the more restless and footloose elements with bibulous tendencies.[139] Perhaps this was true of the metal and textile industries where the numbers of suborned English workers was greater than those in the French Queensware industry. The representative scatter of the disaffected and unstable would therefore be higher.

7.4 The décret du 2 Prairial and the Queensware industry.

As far as English pottery in France was concerned, the application of the décret du 2 Prairial An 11 did not seem to affect the continued development in the manufacture and decoration of English Queensware. Some English potters did appear on lists but continued in their professional activities. Queensware production was maintained. English potters were granted a freedom of mobility that was denied other 'otages'. As has been mentioned, all but one of the English potters who were on the SHAT list turned up subsequently in Creil, Montereau, La Charité and Chantilly.[140] Certain individuals worked at several of these factories.[141] Craftsmen who had been in France for years and who are known to have had long-standing contacts in the Potteries in England also appeared among the other English workers in one or other of these factories.[142] A skilled manager and training expert like one of the Leigh brothers turned up in Montereau and apparently worked in both the cotton and the pottery industry there.[143]

There were English prisoners who were potters, managers and entrepreneurs. They were all involved in Queensware manufacture. They were specialists in factory management,[144] worker-training,[145] turning, mocha decoration,[146] transfer printing or quality Queensware production.[147] They became partners in new French pottery concerns.[148] They established pottery factories in their own right,

sometimes more than once.[149] They became manufacturers in other areas like cotton[150] and spinning.[151] They applied successfully for patents.[152] They were involved in litigation cases about these patents.[153]

They became participants in civil hearings which debated the need for French industry to develop.[154] They figured in lengthy correspondence which involved the Minister of Police, the Minister for War, the Minister of the Interior, the Bureau des Prisonniers de Guerre and the 'préfets' of Nièvre and Oise.[155] They were the subject of questions asked at ministerial level about factory regulations introduced in Year 9.[156] They triggered debates on the fuel situation in France. They put to the test government industrial policies. They were the cause of ministerial bickering.[157]

All this was going on while other English manufacturers and workers were being threatened with detention in Verdun and Valenciennes or were actually petitioning the Minister of the Interior while in one of the 'dépôts'.[158] It would appear that there was some kind of benevolent government intervention on behalf of the English Queensware potters. It was not a new phenomenon and dated from the 1770s at the Montereau manufactory.[159] This time the Queensware initiative was backed by French administrators like Chaptal, scientist, technocrat, pragmatist and anglophile, the Minister of the Interior.[160] He had a special interest in the development of French trade and commerce. At a later date he would hold the office of Directeur Général de Commerce.[161]

With the purpose of developing French industry, Chaptal had lobbied English manufacturers before 1802.[162] As has been noted, he had invited all kinds of industrialists to come to France bringing with them all the best and most up-to-date

English technology applicable to their particular industry.[163] Cotton, net, pottery manufacturers, millwrights and mechanical experts had been targeted. Offers had been made which promised the establishment of English factories in France using English workers, machinery and tools.[164]

One English Queensware potter who had accepted the invitation was Francis Warburton of Cobridge. It has already been stated that he appeared on a SHAT list with five other potters, four of whom are documented elsewhere in the industrial files.[165] One of them was John Stevenson who submitted the patent on mocha in 1806.[166] There was also one of the Leigh brothers[167] and a potter named Willis as well as a mechanic named Guichet who appeared to be English despite his name.[168] Whether Leigh had actually left France and had returned during the Peace of Amiens is unknown. His name, however, is listed among the English potters in France after the 2 Prairial. There was also a Macarthy who apparently moved on as he does not figure further in the subsequent Warburton documentation.

In a war situation there were definite priorities for a Government struggling to keep all the divergent aspects of the economy functioning and viable. The manufacture of pottery could not be expected to come high on any list. The crucial difference was that the pottery in question was English Queensware. The French were still coming to terms with the complexities of perfecting it so that the problem of illegal English imports could be addressed. It was not a Minister of the Interior but a Minister for War, the comte de Hunebourg, who explained simply why the French Government should protect the French pottery manufacturers:

> La préférence que l'on doit leur donner c'est celui de l'encouragement dû aux manufacturiers français qui cherchent à rivaliser l'industrie étrangère.[169]

French industry required development to counteract the continued presence of English goods in France. It was the Minister of the Interior who said that : 'Le Gouvernement protège tous les hommes utiles'.[170] He was talking about an English manufacturer of Queensware who was of undoubted use to the industry and should be encouraged to establish a further manufactory in a pottery centre like Creil.

According to the Minister of the Interior, industry in France should be free to develop without hindrance or impediment: 'qu'il ne fallait être apporté des entraves au libre exercise de l'industrie'.[171] Here is an open statement of government policy with regard to industry in general. It also includes Queensware manufacture in France. This explains why the English potters as 'prisonniers de guerre' were allowed considerable free rein after the décret du 2 Prairial.

The point has been made that English workers and manufacturers who arrived in France seemed to know where to go and whom to contact. This had probably been arranged before they left England. For some English workers, the potters for example, there seemed to have been a central reception point. There had been precedents for this in the past with the half-way house in St. Omer under the control of Madame Willoughby.[172]

Perhaps there was a focal point for each main industry. Near these reception points there were English factories and English workers. In them were facilities where new arrivals could congregate and get their bearings before moving on to

their allocated jobs. This had been the configuration in the past.[173] In the 1770s there had been an English cotton concern in Sens which is near Montereau.[174] A manager and later owner of the Montereau Queensware factory had been connected with this cotton business.[175] Christopher Potter ran a cotton manufactory in Montereau after 1803. We cannot be certain who the individual or individuals were but there must have been organisers behind the scenes, contact figures who could 'place' English craftsmen in English factories in France.

English workers were needed at that time. Some English manufacturers had several English workers in their employ.[176] Sometimes they switched them between factories.[177] One employer was permitted to take recalcitrant workers from penal centres.[178] Such freedom of action suggests that there may have been someone active behind the scenes in the role of a high-level 'fixer'. This person had the confidence of the French authorities as well as contacts in different industrial endeavours. The English workman's aptitude to be adaptable, innovative and disciplined enabled his skills to be transferable to some degree. A trained English workman even from a different discipline was, according to an earlier English entrepreneur in France, worth several French workers.[179]

There was perhaps more than one English 'coordinator' but a likely candidate was Christopher Potter. He was neither an artisan nor a technocrat. His skill lay in seeking out and employing the right kind of workers. He paid them well and made the most of their abilities. He was an organiser and a recruiter. He was also enterprising enough to concentrate on what was commercially viable. He was an experienced entrepreneur and businessman who recognised potential manufacturing opportunities and exploited them.

He effected the transfer of English manufacturing skills and techniques to French industry. These included Queensware, transfer printing and English methods in cotton production. To these might also be added new spinning techniques and the process of mocha decoration. He may not have been personally involved in the management of some aspects of these industrial innovations. It could well be, however, that he was instrumental in bringing the appropriate English craftsmen to the right industrial establishment at the most advantageous point in time. This was his particular contribution to French industry. All this he achieved with the tacit complicity of the French Government, especially after the décret du 2 Prairial.

As has been noted, he had come to the notice of the French authorities at several points in his career. The first was in 1789 when he had offered his 'invention' of transfer printing to the nation. He had also promised to undertake a training programme for French workers.[180] The next time was also in 1789 when the Government's scientific advisers, Berthollet and Desmarais, had given the patent application of his transfer printing process a sound recommendation.[181]

In Year 3 Potter's factory at Chantilly had given a good report by the industrial inspectors and 'commissaires d'Agriculture et des Arts', Besson and Darcet.[182] Later his Queensware factory at Chantilly would be a national medal winner.[183] His development of the former Recollets convent in Montereau would also win medals in the national trade exhibitions.[184] His industrial profile was that of an entrepreneur who could be increasingly useful to French industry through his contacts and wide business interests.

His links with the English lend added credence to the possibility that he was useful to both Governments. In 1793 he had been under suspicion as an agent for the

English Government.[185] This could be interpreted from a different viewpoint. He did have contacts in England and some of them were certainly political as his role as an intermediary for Barras' peace initiatives proves.[186] He probably remained an agent in the sense that he was allowed by both sides to retain contacts in England. The English Government wanted to keep his political skills and connections available. The French Government wanted to foster his expertise as an industrial manager and entrepreneur who could bring English technological skills to French industry. The evidence for this theory is circumstantial.

Potter invested time, effort and money in what was new, innovatory, English and a potential attraction to the French consumer who continued to prefer English goods. His investment in cotton was more pragmatic.[187] It did not pander to the consumer tastes of the French public. It responded to the needs of the French war machine and should, therefore, have been more secure. He probably also had contacts in the English cotton industry. Metcalfe, one of his workers at Chantilly, had been a card maker, a trade that involved spinning and cotton or cloth production.[188] Whatever his role after the décret du 2 Prairial, Christopher Potter influenced the development of French Queensware in France.

It is unlikely that craftsmen would decide to leave England without due preparation and regard for the immediate and long-term consequences. They would want to know where they were going in France. In addition, English workers were aware of the statutes that applied to the emigration of English artisans and the illegal exportation of their equipment or tools.[189] Newspapers, printed pamphlets and articulate employers had driven home the penalties and the shortcomings.[190] They would want some kind of assurance.

The Peace of Amiens that was signed on the 27 March 1802 had opened up new avenues of possibility for English manufacturers. In France, however, as soon as the Treaty was signed, there were some English workers who applied for passports out of France, most of them returning to England and others making their way to other parts of Europe.[191] Those returning to England were probably hoping that an amnesty would expunge their renegade actions from the English government files on emigrant workers. They were no doubt watched carefully for some time as potential enticers and recruiters for the French. It was an uneasy peace that was short-lived. The decree of the following year caught many Englishmen in France by surprise.

As has been noted earlier, in early April 1802, Francis Warburton, a manufacturer of Queensware from a Cobridge potting family arrived in France together with a few pottery workers. Warburton stated that the Peace of Amiens had been the motivation in his emigration to France.[192] It could also be argued that it was common knowledge in the Potteries that Francis Warburton had just dissolved a partnership with his brother and had financial assets available. It has been estimated that he brought a fortune of thirty thousand francs to France over the next eleven years.[193] Chaptal's open letter and invitation must have swayed the issue. He may have been targeted specifically although proof at this point is lacking.

Warburton came to France with the intention of setting up a creamware factory.[194] His family had excelled in creamware production for generations.[195] His manufacturing credentials were, therefore, impeccable. His technical and entrepreneurial contribution to the development of Queensware in France,

however, is minimal. His was not a success story despite the freedom of movement that the Government afforded him.[196] One of the workers that had accompanied him from England had far more impact on the French pottery industry than he did and this was not effected when in Warburton's employ. This was John Stevenson with his patent for mocha decoration on Queensware.[197]

The significance of Warburton lies in the reactions that he triggered in French government circles when he challenged the established Queensware community. The French ministerial responses were far more generous than those of his fellow potters, some of whom were also English. Established manufacturers of English pottery in France attacked new English manufacturers and were reprimanded by the Minister of the Interior for doing so.[198] From the viewpoint of commercial competition it is, however, readily understandable.

In March 1813, at the end of his career in France, Warburton asked the French Government for permission to return to England. He addressed his letter to Monsieur le Baron de Breteuil, Auditeur au Conseil, Préfet du Département de la Nièvre. In this request, Francis Warburton gave an account of how the French Government had treated him all those years as a 'prisonnier de guerre':

> Son excellence le Ministre de la Guerre a toujours eu la bonté de le distinguer de ses compatriotes détenus comme prisonniers de guerre en ordonnant aux Généraux de la Division militaire de le laisser aller et venir librement pour toutes ses affaires et par sa conduite depuis qu'il est en France, il n'a donné aucun sujet de regretter cette faveur, s'étant toujours comporté en homme d'honneur.[199]

Since the décret du 2 Prairial, the Minister for War had allowed Warburton particular privileges that, he claimed, had not been granted to other English prisoners-of-war. Other English potters, however, were also able to move with some freedom for certain individuals are documented in several factories.[200] Warburton had been allowed to move from place to place so that he could see to his business affairs. In fact he was looking for work as well as a suitable site for a new Queensware factory. He had never broken the Minister's trust in him and hoped that he would grant him a passport to return to England as soon as possible.[201]

It has been suggested that Warburton had gone first of all to Montereau in April 1802 with his English workers.[202] Some time was spent here as he assessed the manufacturing situation. Then he had moved on to another pottery centre, Nevers in Nièvre, which is close to La Charité.[203] In June 1802 Francis Warburton rented an extensive 'bien national', a former priory in La Charité, from a local official and justice of the peace, Christophe le Bault.[204] Here he established a Queensware manufactory with around fifty workers, some of them as young as twelve years old. Only a dozen of these workers were trained to the pottery trade. Among them were John Stevenson, a turner, Michael Willis, a general operative, his wife, Jane Evans, whose skills are unknown and Guichet, a mechanic.[205]

The factory faced many problems not least because of the large number of unskilled or semi-skilled workers that it employed. Conscription accounted for the lack of trained personnel. Connections were maintained between La Charité and other Queensware centres such as Montereau. Warburton used Montereau clay in the manufacture of his Queensware.[206] His early wares included plates with

rudimentary mocha decoration that were probably the contribution of Stevenson.[207]

Early in 1804, according to Guineau, Warburton was injured in a hunting accident and handed over the management of his factory to Michael Willis.[208] The Archives communales in Chantilly indicate that Willis was in Chantilly around this time.[209] He had probably tried to run the factory in La Charité while Warburton recovered. Willis was neither a manager nor a businessman. The factory lost trade and could not adjust to prevailing trends. There was also a general slump in the Nevers pottery market at this time.[210]

At La Charité costs were high, local outlets limited and wood increasingly in short supply.[211] Warburton was losing money in this investment. He relinquished part of his interest in the factory at La Charité to Christophe le Bault who owned the premises.[212] He began to look around for more promising enterprises. This was probably when Willis, Guichet and Warburton tried to find other work opportunities outside La Charité. They had petitioned the mayor of La Charité and been given permission to leave for Chantilly. The mayor stated that Guichet and Willis had families to support so they had felt compelled to leave La Charité in order to earn a living.[213]

The Minister for War allowed Warburton the freedom of movement that he had requested. He visited other towns where there were English factories and a potential reservoir of English workers that he needed for Queensware production. He had attempted to manufacture without the requisite expertise and it had not been a success. For years he searched for the right place to develop his industrial concerns, returning to La Charité as his main base. The archives give few details

of this period. Eventually, in 1808-9 he opened his second Queensware factory in Creil. This attracted the immediate attention of ministers and manufacturers.[214]

John Stevenson was no longer in La Charité and had found employment with Merlin Hall at the Montereau Queensware factory in the period between 1804 and 1806.[215] By 1806 Stevenson had moved on to the Queensware establishment at Creil which was managed successfully and efficiently by another Englishman, James Bagnall, who was also a partner in the concern.[216] This is the same Bagnall who had managed the Chantilly Queensware factory for Christopher Potter.[217]

Creil like Montereau was a focal point for English workers. There was the pottery factory with several English craftsmen involved in the production of high quality wares that were decorated quickly and efficiently by the most fashionable and cost-effective English methods. Turners like Stevenson applied the mocha decoration to a wide range of items. This range had its own mocha catalogue.[218] Transfer printing was done in an off-shoot of the factory, in a Paris printing works run by John Hurford Stone.[219] The quality of the work was high and comparable to the best in English hand-painted decoration.[220] Stone had been a partner in the Creil factory some years earlier.[221] There had been various English partners in this factory's history. In 1798, one of them, Gay, had admitted that he was the representative for other English investors.[222]

We know that in 1803 Bagnall had decamped from the Chantilly factory to the establishment in Creil with the best Queensware workmen including English operatives.[223] Bagnall had done this illegally. He had not obtained permission to leave from his employers, the Paillarts. Thus, his 'livret' or work pass was not in

order. In addition, he was instrumental in effecting extensive industrial sabotage in the Chantilly factory.[224] Surprisingly, no punitive action was taken against Bagnall or his English workers despite the official complaints of the Paillarts. It has been suggested that Potter was behind the sabotage at his former factory.[225] Queensware developments had gone as far as they could go at Chantilly. Creil was now going to be a centre of excellence. Creil needed the best Queensware workers that were available. The battle was on to win the dominance of English Queensware from the English and establish it firmly in the hands of French manufacturers.

James Bagnall did much to consolidate the strengths and qualities that had become synonymous with the Queensware product in France as in England. He went on to become a stalwart member of the Creil community, both as a Queensware manufacturer and cotton entrepreneur with special interests in spinning. He was mayor of the town and ran the voluntary fire brigade in which many of his workers served. His application for French nationality in 1815 show that he had first arrived in France in 1784 and was married to a Frenchwoman. He died in Creil in 1823, a much revered local figure.[226]

Bagnall had undoubtedly been influenced and guided by Christopher Potter in his industrial strategies and acquisitions. Potter had always stressed quality and effective personnel. When Francis Warburton had turned up in Creil in 1808 and had set up a Queensware factory in the town the reactions were swift. The management at Creil did not approve of the establishment of a potential rival on its doorstep. In addition, Warburton's Queensware production in France had not been of the first quality. This was not the kind of input that was wanted. Bagnall

and St. Cricq Casaux, the two most prominent partners, once more took a fellow Queensware entrepreneur to task. As in the mocha patent case in 1806, the Creil management petitioned the Minister of the Interior who set various administrative wheels in motion.[227]

There was a report from the Bureau des Prisonniers de Guerre which refers to the prisoner-of-war, Francis Warburton.[228] On 16 February 1809, the Minister for War, the comte de Hunebourg, related this report to the Minister of the Interior, the comte de Champinol, and explained that he had personally authorised Warburton's move from La Charité to Creil:

> L'autorisation que je lui ai accordé à cet égard lui a été expédiée sur la demande de la Police Générale.[229]

It had since come to his notice that a complaint had been lodged by St. Cricq Casaux and Bagnoll (sic), manufacturers in Creil:

> Une plainte contre la permission accordée au Sr. Warburton Anglais d'origine de s'établir dans le même lieu pour y exercer la même profession.[230]

They had claimed that Warburton was not of good character, that he was 'crapuleux, ivrogne, sans conduite et sans talents'.[231] Where they had obtained this information from is not stated. It was confounded, however, by an earlier routine report made on Warburton as a 'prisonnier de guerre' by the mayor of La Charité.[232] Here it was stated: 'que Warburton n'avait cessé de donner des preuves de la moralité la plus épurée'.[233]

On the 24 March 1809 the Minister of the Interior informed the Minister of General Police that Warburton had moved to Creil with legitimate permission. He had,

however, behaved in an illegal manner by setting up a pottery factory in Creil. He had not consulted the Government with regard to planning permission which involved 'detailed formalities'. He had not requested information on the factory regulations of 18 Messidor Year 9. The Minister of the Interior seemed to be about to condemn Warburton.[234]

The 'préfet' of the Oise department was brought into the debate. He also seemed to be hostile to Warburton's case.[235] He pointed out that there was an acute shortage of fuel resources in the region. If new factories were allowed to open or remain in business this would exert greater pressure on the dwindling reserves for the factories that were already established. He added that the businesses in Creil were French and had met all the necessary statutory requirements.[236] His view of the case is expressed in this statement: 'La rareté du combustible exige l'exemption la plus rigoureuse'.[237]

The Minister of the Interior at this point criticised the extreme nature of the prefect's advice and ruled against the petition brought by the Creil management against Warburton:

> Le Gouvernement ne sauroit accueillir la demande des Sieurs Cricq Casaux et Bagnol (sic).[238]

He deplored the hostile and unsympathetic treatment of a foreign entrepreneur who was simply trying to earn a living. The Minister claimed that competition was at issue in this matter. The complaint had little to do with morals, character, fuel shortages or patriotism.[239] The Creil management had exploited its knowledge of the bureaucratic and ministerial system to bring its case to the fore. The motivation of its managers was as follows:

Ils n'ont eu d'autre intention de se débarrasser de la concurrence d'une manufacture rivale.[240]

The Minister of the Interior was adamant that the Government 'ne saurait servir d'instrument aux passions particulières'.[241] By allowing Warburton to remain in Creil he was maintaining the impartiality and integrity of his office.[242]

The reaction of the Minister for War was to adopt the opposite view from his ministerial colleague and frequent protagonist in the debate about English prisoners-of-war.[243] He backed the 'préfet' of Oise in the view that French manufacturers should be encouraged at all costs in the face of foreign competition. He also added that they should be given preference when conditions were difficult. Hunebourg also requested clarification on the Government's policy on the issue.[244]

The debate continued for some time. In the end, however, Warburton was forced to abandon his Queensware factory in Creil. He returned to La Charité and eked out an existence on the remains of his fortune and his share of the business. When he petitioned the Minister for War in 1813 he said that he could not obtain any more funds from England. He wanted to go home to England to die amongst his own family.[245] He left the following year.

7.5 Conclusion.

Information dealing with the décret du 2 Prairial 1803 does not dominate the French industrial archives that deal with pottery manufacture. English potters were, indeed, 'prisonniers de guerre'. As far as they were concerned, however, there was benevolent intervention on the part of the French authorities that allowed them to continue the transfer of English technology to the manufacture of Queensware. Some potters did figure on Prairial lists but their lives were not

dislocated by enforced removal to detention camps in Valenciennes or Verdun. Admittedly, the parameters of Queensware reference have been limited to the English establishments in Chantilly, Creil, Montereau and La Charité. It is also true that the number of English pottery operatives would not have been high. The 'décret' poses questions that are worthy of debate.

Decades of smuggling goods into France meant that there was an established network of clandestine contacts along coastal or frontier routes. This explains how English workers continued to penetrate French defences during an almost unbroken period of war. It does not make clear, however, why English workers wanted to work in French factories.

This brings into play the argument that industrial espionage was effected with the connivance of the French Government and the help of English manufacturers in France. These men had contacts in English factories or industrial areas. Recruiters were always on the alert for potential workers for France among the disaffected or uncommitted. Proceedings from the Stafford Assizes show that this was a possibility.

French government figures knew that English manufacturers and workers had been solicited and enticed to translate their skills to France when the Peace of Amiens came into force. Money that had, of necessity, been allocated to the war effort was about to be invested in French industry. This would enable it to combat the continued inroads on French markets from English products like Queensware. Even the Minister for War who so often defied the Minister of the Interior over English prisoners admitted that French industry required encouragement in combating the threat from foreign imported goods. Many of these were English.

This is where French administrators like Chaptal worked smoothly and efficiently behind the scenes to effect the enduring and useful transfer of English technology to French industry. He contacted English manufacturers and invited them to establish industrial concerns in France. He extended a general invitation to workers and entrepreneurs in England to bring their skills to France. There had been precedents for French industrial espionage in the development of the Queensware industry in France. They had included the services of English entrepreneurs in France as links with a small network of contacts within the English Potteries.

Certain English entrepreneurs stand out. Christopher Potter was, par excellence, an organiser and a recruiter of considerable skill. Had this not been the case he could not have achieved so much in transfer printing, Queensware production and running his factory on the lines of Wedgwood. He later diversified into cotton and linen.

He was not a printer or an engraver. He was not a potter. But he understood enough of the fundamentals in these crafts to seek out the best exponents and employ them. His industrial endeavours were successful because of the calibre of his technical experts and managers. Poor employees were a liability and were jettisoned.

Potter was probably helpful to the French Government in targeting the right kind of English entrepreneurs and workers before and during the Treaty of Amiens. Years earlier he had certainly been used by the French authorities to negotiate with the English. This was, therefore, a role that he could perform. He had connections

with the English prisoners of war in the holding and detention camps. He has been called an 'agent des princes'.

English pottery workers in France at this time were able to achieve so much. Other English workers were 'imprisoned' in detention or correction camps with their mobility curtailed and their technical input into French industry nullified. Quality innovations were brought to the Queensware industry in terms of production and decoration. Transfer printing and mocha were commercially viable and sound marketing strategies which involved English technical innovation. The French consumer continued to buy English goods but more of them were now made in France as quality improved.

The episode involving an English potter and his attempt to penetrate the established Queensware network revealed how competitive the industry was. That the Minister of the Interior should protect and commend the efforts of an English entrepreneur is important. So too is the statement of the French Government's policy of encouragement for all French industry including Queensware. The décret du 2 Prairial did not affect the development of the French Queensware industry to any great extent.

Chapter 7 Endnotes.

[1] The following unpublished thesis by the late Margaret Audin has been invaluable in the drafting of this chapter. Margaret Audin, 'British Hostages in Napoleonic France. The Evidence with particular reference to Manufacturers and Artisans', M. Soc. Sci. thesis, Birmingham, 1987, passim. Also the Service Historique de l'Armée de la Terre, Archives, Vincennes, 1 série, Prisonniers de guerre, prisonniers anglais, I er Empire, décret du 2 Prairial An 11, (22 May 1803), Article III. Many of the SHAT references about workers in general are attributable to Margaret Audin.

[2] The French Ambassador left London on 17 May 1803. Britain declared war on France on 18 May 1803. Michael Lewis, Napoleon and his British Captives (London, 1962), p. 23.

[3] R. R. Palmer, Twelve who ruled (New Jersey, 1941), p. 231.

[4] SHAT, Bureau des Prisonniers de guerre, miscellaneous boxes, May 1803.

[5] The official in charge of the Prisonniers de guerre files from 1793 till 1814 was a 'commissaire de guerre' in the Ministry of War, Jean Baptiste Nicolas Goulhot, Ernest Hauterive, La Police Secrète du Ier Empire (Paris, 1903-4), n.p.

[6] SHAT, Prisonniers de guerre, 20 August 1810, Confidential letter from the fifth division of the Ministry of War, duc de Feltres, to the Minister for the Navy and Colonies, duc de Decrès. There were 10 626 English prisoners, 500 hostages and 932 men from the Irish Legion.

[7] Camps and holding 'dépôts' for English prisoners-of-war were scattered around France. A basic map of these was drawn up by Margaret Audin. See the Illustration entitled: Camps and detention centres after 2 Prairial Year 11.

[8] Archives communales, Chantilly, !792 –1809, Prisonniers-de-guerre, poterie. For information from these archives I am indebted to the generous scholarship of Mademoiselle Chapard, curator at the Musée de Chantilly. Her unpublished research was on 'Christophe Potter, agent des princes'. The interviews with her have only now been fully appreciated.

[9] Audin, 'British Hostages', p. 152. Also to Max Lenz, Napoleon (London, 1909), p. 206. There were members of Parliament, important businessmen, wealthy gentlemen and aristocrats.

[10] J. R. Harris, 'Sources for the Study of Industrial Espionage by Eighteenth century France' in D. C. Christensen (ed.), European Historiography of Technology (Odense, 1993), p. 31. Harris estimated that there were about 316 manufacturers and artisans.

[11] SHAT, Bureau des Prisonniers de guerre, 1804.

[12] Ibid., April 1803

[13] A.N. F 12 2442, February, March 1809, Warburton; F 12 1559, An 12, 1804, Guillaume Oppenheim.

[14] Maddy Ariès, Donation Millet (Sceaux, 1979), p. 11.

[15] Charles Floranges, Expositions Nationales et Universelles en France de 1799 à nos jours (Paris, n.d.), p. 26.

[16] This was in the old Prince des Galles premises in Paris.

[17] A. N. F 12 1559, 1802, Neufchâteau, mémoire, Moyens d'Encouragement que le Gouvernement s'empressera de répandre sur le commerce les manufactures et les arts.
[18] SHAT, Bureau des Prisonniers de guerre, Minister of War to the Minister of Police, 12 November, referring to Dean, an English 'prisonnier de guerre' who was of use to the Government: 'mais il n'en est pas moins au nombre des anglais qui servent de garantie de la conduite du gouvernement anglais envers nos prisonniers et ne peut être en ce moment envoyé dans sa patrie'. 'He is nonetheless included among the Englishmen who serve as a guarantee for the conduct of the English Government towards our prisoners and may not at this point in time be sent back to his country'.
[19] Ibid. This quotation is translated again in isolation: 'among the number of Englishmen who serve as a guarantee for the conduct of the English Government towards our prisoners'.
[20] Audin, 'British Hostages', p. 39.
[21] A. N. F 7 4787, in Jacques-Louis Ménétra, Journal of my life. With an Introduction and commentary by D. Roche. Translated by A. Goldhammer (New York, 1982), p. 360, Introduction, commentary note 22.
[22] SHAT, Bureau des Prisonniers de guerre, Prisonniers anglais, 1er Empire, 1809, Warburton, François, La Charité.
[23] Audin, 'British Hostages', p. 146.
[24] A. N. F 12 1559, An 12, 1804, Guillaume Oppenheim.
[25] O (Oppenheim), ancien manufacturier, L'Art d'imprimer sur Faïence et Porcelaine. Les procédés et nouvelles découvertes (Paris, 1807).
[26] A. N. F 12 1003, 30 Frimaire An 11, Chaptal to Christophe et Thomas Milles (sic) Potter.
[27] SHAT, Bureau des Prisonniers de guerre, 3 January 1804, from Chaptal, Minister of the Interior to the Minister for War.
[28] Idem.
[29] Idem. 'You should be careful, Citizen Minister, that the execution of measures taken against the English in France by some of your operatives has not been too ill-considered and does not exceed in rigour the guidelines that the Government has set. In addition to the misfortunes of war at sea which have closed outlets for the distribution of their products, one now adds the dislocation of their production by taking away the workers that they need.'
[30] Idem.
[31] A. N. F 12 2442, 1809, Warburton.
[31] Idem
[32]Audin, 'British Hostages', p. 130.
[33] Idem.
[34] SHAT, Bureau des Prisonniers de guerre, Département d'ordre général, Bureau civil, Enregistré No. 738, request from the mayor of La Charité to the Minister of Justice, permission for the English worker, Michael Willis, to move to Chantilly, 1804. It was granted.
[35] Archives communales, Chantilly, 1804. Willis, Guichet and Warburton were all in Chantilly at this time.
[36] Audin, 'British Hostages', p. 83.
[37] Idem.
[38] Ibid., p. 212.

[39] John Goldsworth Alger, Napoleon's Visitors and Captives 1801-1815 (London, 1904), pp. 145-146.
[40] Dictionary of National Biography (Oxford, 1917), XVIII, pp. 1300-1301, Stone.
[41] Audin, 'British Hostages', p. 115, referring to James Bradshaw who had lived in Paris for nine years with his French wife. Also p. 118.
[42] Ibid., p. 149.
[43] Idem.
[44] Idem. Referring to ironmasters in Rouen, the Dobson brothers. 'They had not been included in the earlier lists because the civil authorities who were originally charged with this job had omitted to include them as well as several others. This was out of a desire to keep them because of their usefulness and because of their long residence in France'.
[45] A. N. F 12 2442, Brumaire An 3, Besson and Darcet, report on Chantilly.
[46] Dictionary, XVI, p. 214, Potter; XVIII, pp.1300-1301, John Hurford Stone.
[47] Archives communales, Chantilly, 1793-4.
[48] Idem.
[49] Idem.
[50] Interview, Mademoiselle Chapard with the author, Chantilly.
[51] Idem.
[52] Maddy Ariès, Donation Millet (Sceaux, 1979), p. 11.
[53] Henry-Pierre Fourest, 'La Faïence Fine Française des Origines à 1820', Cahiers de la Céramique, du Verre et des Arts du Feu (Paris, 1969), p. 193.
[54] Archives communales, Chantilly, 1793-4.
[55] Keele, The Wedgwood Manuscripts, Etruria and Liverpool, E 30-2232.
[56] Chapard, Interview.
[57] Archives communales, Chantilly, 1792.
[58] Ibid., An 3.
[59] SHAT, Prisonniers de guerre, 1803.
[60] Archives communales, Chantilly, An 4.
[61] A. N. F 12 2442, An 4, Leigh.
[62] Archives communales, Chantilly, An 5.
[63] Chapard, Interview with the author, Chantilly.
[64] Fourest, 'La Faïence Fine Française des Origines à 1820', p. 184.
[65] A. N. F 12 2442, 23 Brumaire An 3, report on Chantilly, Besson and Darcet.
[66] A. N. F 12 1559, 1804-5, Bosc D'Antic and Lasteyrie, report on Oppenheim.
[67] O (Oppenheim), ancien manufacturier, L'Art d'imprimer sur Faïence et Porcelaine. Les Procédés et nouvelles Découvertes (Paris, 1807). With E. J. B. Bouillon-Lagrange he also wrote L'Art de fabriquer la Poterie façon anglaise (Paris, 1807).
[68] A. N. F 12 1559, 1789, Picquet, report on Chamberlain.
[69] J. R. Harris, Industrial Espionage and Technology Transfer. Britain and France in the Eighteenth Century (Aldershot, 1998), p. 125.
[70] A. N. F 12 1559, 1789, Picquet on Chamberlain.
[71] Bernard Guineau, La Manufacture de faïences fines de La Charité-sur-Loire (Nièvre) (1802-1812) (Charité-sur-Loire, 1979), pp. 14, 18.
[72] SHAT, Bureau des Prisonniers de guerre, 26 Nivôse, An 12.
[73] A. N. F 12 1007, 1803, Jean Stevenson.
[74] Ibid., 1 May 1806, Brevets d'invention, mocha, Jean Stevenson. .

[75] SHAT, Prisonniers de guerre, 26 Nivôse An 12, Division de la Police Secrète, Le Préfet du Département de la Nièvre, au citoyen Grand Juge, le Ministre de la Justice.
[76] Idem.
[77] Archives communales, Chantilly, An 12.
[78] Idem.
[79] A. N. A. D. X I 42, Arrêt du Conseil d'Etat du Roi, concernant les marchandises étrangères prohibées dans le Royaume, 17 July 1785, Calonne, Contrôleur des Finances.
[80] Maddy Ariès, Donation, p. 271. Richard Glot, a faïence manufacturer at Sceaux had attacked the 'massive arrival' of English pottery.
[81] A. N. F 12 1498 A, An 7, Moitte, An 10, Arlon; 1559, An 5, Mayeuvre, An 6, Minister of the Interior; 1498 B, An 3, Houzé; 2442, An 10, Michaut.
[82] A. N. F 12 2442, 23 Brumaire An 3, report, Besson and Darcet on Potter.
[83] Archives communales, Chantilly, 1793.
[84] Maddy Ariès, La Manufacture de Creil (Paris, 1974), p. 24.
[85] SHAT, Prisonniers de guerre, 26 Nivôse An 12, Division de la Police.
[86] SHAT, 1 série, Prisonniers de guerre, 1809, Bacon. He was not a pottery worker.
[87] Idem.
[88] PRO, Assi. 5/103 Staffordshire Summer Assizes 1783. R v James Perry, labourer, late of the parish of Draycott, for attempting to persuade Nathan Jackson, potter, to go to France, at Stoke on the 1st July 1783. The endorsed witnesses are Nathan Jackson, Isaac Rowley and James Steel. The bill was not found by the grand jury (i.e. the case did not go to trial). Also Assi, 5/104. Staffs. Lent Assizes 1784. R v James Perry for the same offence. The judicial outcome is unclear.
[89] Archives départementales, Pas de Calais, October 1804, Bance, a soap manufacturer.
[90] SHAT, 1 série, Prisonniers de guerre, 1809, Bacon.
[91] Idem.
[92] John Torpey, The Invention of the Passport. Surveillance, Citizenship and the State (Cambridge, 2000), Chapter 2, 'Argus of the Patrie: The Passport Question in the French Revolution'. The need to have identifying papers together with details of the destination increased after the Revolution.
[93] Josiah Wedgwood, An Address to the Workmen in the Pottery, on the Subject of Entering into the Service of Foreign Manufacturers (Newcastle, Staffs., 1783), passim.
[94] A. N. F 1559, 1802, Neufchâteau, mémoire, Moyens d'encouragement...
[95] SHAT, 1 série, Prisonniers de guerre, July 1802, reference to a letter from Chaptal, Minister of the Interior, to Archibald Armstrong. He invited him to set up a business as a glass cutter. Armstrong ended up in Bordeaux.
[96] Ibid., August 1805, Cox, a gold and silver plater in the luxury trades. He was sent to Brussels but requested permission to come to Paris. This was refused. He protested that he had come to France 'on the invitation made by the French Government to all foreign manufacturers without exception'. He had reached France before 1803.
[97] Idem.
[98] A. N. F 12 1559, 1802, Neufchâteau, mémoire, Moyens d'encouragement...

[99] Idem.
[100] SHAT, I série, Prisonniers de guerre, January 1802, Armytage.
[101] Ibid., August 1805, Cox.
[102] Ibid., January 1804, Chaptal on behalf of Armytage.
[103] Wedgwood, An Address, pp. 18, 22.
[104] Idem.
[105] Harris, Industrial Espionage and Technology Transfer, pp. 552, 553.
[106] A. N. F 14 4261, 1775, Marchant de la Houlière, mémoire, Sur les moyens d'employer le charbon de terre à fonder la mine de fer, à fabriquer du fer forge et à mouller d'excellens canons, pour la marine comme on le pratique en Angleterre, unpaginated.
[107] Idem. 'If there was a renewal of hostilities with England before he was in France then he would not be able to go there without being proscribed and guilty of a felony. If, on the other hand he had done it during peacetime then he would have been entitled, as part of his freedom as an Englishman, to conclude whatever agreements ensured his fortune'. The Englishman in question was William Wilkinson.
[108] SHAT, 1 série, Prisonniers de guerre, 1805 till November 1809, Chaptal on behalf of Aitken, a millwright with many customers, English and French.
[109] Archives départementales, Pas-de-Calais, 1811 and 1813, Birthwright. His occupation is given as sailor.
[110] Ibid., October 1804, Bance a soap manufacturer, aged 63, left France. He had arrived in March 1802 with nine children, had settled in St. Omer, taken French nationality and bought a house. In January 1805 his daughters left France also.
[111] Ibid., October 1804.
[112] Audin, 'British Hostages', p. 146.
[113] A. N. F 12 2442, March 1809, Minister for War to the Minister of the Interior.
[114] J. A. C. Chaptal, De L'Industrie Françoise, 2, p. 430.
[115] SHAT, I série, Prisonniers de guerre, January 1802, Armytage; August 1805, Cox.
[116] A.N. F 14 4261, 1775, Marchant de la Houlière, mémoire.
[117] A. N. F 12 1559, An 6, Neufchâteau.
[118] Denis Woronoff, La République bourgeoise (Paris, 1972), pp. 115-130.
[119] A. N. F 12 1559, Montaran, Minister of the Interior.
[120] See Chapter 4, endnote 31.
[121] Chaptal, De L'Industrie Françoise, 2, p. 430.
[122] Idem. The italics are Chaptal's. 'We have done everything we can to acquire manufacturing, mechanical spinning, hardware, cottons, fine fabrics, everything has become the object of our ambition all at the same time. By importing the machines, by relying on a few transmitted procedures, have we actually believed that we have assimilated these difficult skills in all their ramifications? Have we imagined that we are in possession of these countless details, these *manual skills*, these spontaneous actions that are the heart of industry?'
[123] A. N. F 12 1315, 1762, Michael Alcock to the duc de Praslin, requesting a passport for one of his agents, Hide, to go to England on a recruitment mission.
[124] Ibid., 657 f 91, 26 January 1776, Trudaine de Montigny, 'mémoire' on how to improve French industry by the enticement of English workers.
[125] Ibid., 1315, 1756-1766.

[126] Bibliothèque Mazarine, Ms. 2. 840, John Holker, Report on how to multiply and improve factories in France, 1752.
[127] Aimé-Houzé de l'Aulnoit, Essai sur les Faïences de Douai dites grès anglais (Lille, 1882), pp. 18, 35, 70, 75, 90. Also, Keele University, The Wedgwood Manuscripts, Etruria and Liverpool, 3, E 30-22321, E 26-18964, 10 April 1784.
[128] A. N. F 12 1559, 1802, Neufchâteau, mémoire, Moyens d'encouragement...
[129] Audin, 'British Hostages', p. 144.
[130] Ibid., p. 146.
[131] Ibid., p. 144.
[132] Idem, Bent and Landerdale.
[133] Keele University, The Wedgwood Manuscripts, Etruria and Liverpool, March 8 1784, 3, E 30-22321, Samuel Jones to Bris, Douai.
[134] Harris, Industrial Espionage and Technology Transfer, p. 551.
[135] Dictionary , XVI, p. 214, Potter.
[136] Audin, 'British Hostages', p. 115. Willcox was an ex-sergeant in the army who worked for Wendel, the ironmaster. He had deserted in France because of debt.
[137] Dictionary, XVIII, pp. 1300-1301, Stone.
[138] David Jeremy, 'Damming the Flood', Business History Review , 51, 1977, p. 11.
[139] Harris, Industrial Espionage and Technology Transfer, p.551.
[140] Francis Warburton, John Stevenson, Michael Willis, Guichet and Leigh. Macarthy had already moved on.
[141] John Stevenson.
[142] A. N. F 12 2442, 1797.
[143] Idem.
[144] James Bagnall and Christopher Potter, Chantilly and Creil, A. N. F 12 2442 and SHAT, I série, Prisonniers de guerre.
[145] Charles and James Leigh, Douai, de L'Aulnoit, Essai , pp. 70-75, 90; A. N. F 12 2442, 1797.
[146] Stevenson, Creil, A. N. F 12 1007.
[147] Christopher Potter and James Bagnall, Chantilly and Creil, A. N. F 12 2442.
[148] John Hurford Stone (1763-1818) was an Englishman who had been a coal merchant in Taunton and later became a printer. A Unitarian and a radical, he sympathised with the French, their success and actions. He was in France in 1792 and 1793. After the reprisals in 1793 he was arrested and spent a short time in the Luxembourg. In 1794 he was again arrested. In 1796 Stone's brother was tried at the Old Bailey for 'treacherously conspiring with John Hurford Stone now in France, to destroy the life of the King and to raise a rebellion to his realms'. Acquitted, William Stone joined his brother in France. John Hurford Stone was briefly a partner in the Creil Queensware manufactory. Then he established a transfer printing factory in Paris with two other associates of the Creil Factory, Coquerel and Helen Maria Williams. This was in the rue du Cadran. Patents were received by Stone and his partners in 1808 and 1809. Dictionary, XVIII, pp.1300-1301; Ariès, Manufacture, pp. 96-99, 124-5; A. N. F 12 1012, 1808, Stone, Coquerel, Legros.
[149] Francis Warburton, La Charité and Creil, Bernard Guineau, La Manufacture de faïences fines, passim; A. N. F 12 2442, February, March 1809.
[150] Potter in Montereau and St. Quentin, SHAT,1 série, Prisonniers de guerre.
[151] Ibid., Bagnall in Creil. Also A. N. F 12 1559, 12 June 1815, application for French nationality.

[152] Potter for transfer printing, A. N. F 12 1003, 22 July 1789, report by Berthollet and Desmarais, An 11, Potter to Chaptal; Stevenson for mocha decoration, A. N. F 12 1007, 27 June 1806; Stone for transfer printing, Ariès, Manufacture, pp. 124-5; A. N. F 12 1012, 1808.
[153] Stevenson at Creil, in dispute over mocha decoration with Montereau, A. N. F 12 1007, 1806.
[154] A. N. F 12 2442, 1809, Warburton.
[155] Idem.
[156] Idem.
[157] Idem.
[158] SHAT, I série, Prisonniers de guerre, May 1803, Archibald Armstrong to Chaptal.
[159] A. N. F 12 1497, December 1774, Holker (fils) to Trudaine de Montigny.
[160] Harris, Industrial Espionage and Technology Transfer, p. 550.
[161] Idem.
[162] SHAT, I, série, Prisonniers de guerre, July 1802, letter from Chaptal to Archibald Armstrong, glass cutter.
[163] Ibid., August 1805, Cox, luxury metal worker employing twenty workmen in Brussels. He wished to work in Paris and complained to the Bureau des Prisonniers de guerre that he had come to France 'sur invitation faite par le gouvernement français à tous les fabricants étrangers sans exception', 'on the invitation made by the French government to all foreign manufacturers without exception'. This has been cited earlier.
[164] Ibid., 1802 onwards.
[165] Ibid., April 1803, Warburton, Willis, Stevenson, Leigh, Macarthy and Guichet.
[166] A. N. F 12 1007, 1806.
[167] A. N. F 12 2442, 1797.
[168] SHAT, 1er Empire, 44, Prisonniers de guerre, Prisonniers anglais, 1803.
[169] Ibid., March 1809, Minister for War to Minister of the Interior. 'The special treatment that one should give them is one of encouragement that is owed to French manufacturers who are striving to compete against foreign industry'.
[170] Ibid., 16 February 1809. 'The Government protects all useful individuals'.
[171] Idem. '...there should be no impediment put in the way of free industrial practice'.
[172] A.N. F 12 1315, 1757, Alcock with reference to Willoughby.
[173] Idem.
[174] Jacques Bontillot, Curateur, Musée de la Faïence, Montereau.
[175] Yale University, Beinecke Rare Book and Manuscript Library, Holker Papers, Rouen, 20 October 1779.
[176] SHAT 1 série, Prisonniers de guerre, 1809, Christopher Potter.
[177] Idem.
[178] SHAT 1 série, Prisonniers de guerre, 1809, Christopher potter organised the release of the cotton worker, Bacon.
[179] A. N. F 12 1315, 1757, Alcock to de Moras; April 1762, Alcock to Trudaine.
[180] Dictionary, XVI, p. 214, Potter.
[181] A. N. F 12 1003, 22 July 1789, Berthollet and Desmarais.
[182] A. N. F 12 2442, 23 Brumaire An 3, Rapport sur la manufacture de Faïence de Chantilly fait à la Commission d'Agriculture et des Arts, par les Citoyens Besson et Darcet.

[183] Floranges, Expositions Nationales et Universelles, p.26. In 1798 Potter was a first class medallist. In 1801 and 1802 he won a gold medal.
[184] Idem.
[185] Dictionary, XVI, p. 214, Potter.
[186] Idem.
[187] SHAT, 1 série, Prisonniers de guerre, list of cotton manufacturers. Potter was registered as owning factories in Montereau and St. Quentin.
[188] Archives communales, Chantilly, 1793.
[189] Jeremy, 'Damming the Flood', pp. 2, 3, 11.
[190] Wedgwood, An Address, passim.
[191] A. N. F 12 3354, An 10, passports.
[192] Guineau, La Manufacture, p. 19.
[193] Ibid., pp. 9,10.
[194] Idem.
[195] Llewellynn Jewitt, The Ceramic Art of Great Britain (London,1878), p. 296.
[196] Guineau, La Manufacture, pp. 14,15.
[197] A. N. F 12 1007, 1806, Stevenson.
[198] A. N. F 12 2442, March 1809, Minister of the Interior to the 'préfet' of Nièvre, referring to Warburton.
[199] Guineau, La Manufacture, p. 19. 'His Excellency the Minister of War has always been kind enough to put him apart from his fellow Englishmen detained as prisoners by instructing the generals in the military division to allow him to come and go as he pleased for all his business. In the way that he has behaved since he has been in France he has caused no one to regret this preferential treatment. He has always behaved as a man of honour'.
[200] Archives départementales, Chantilly, An 12. John Stevenson also worked at Montereau and Creil. Willis appeared at Chantilly. Guichet went on to Tournus.
[201] Guineau, La Manufacture, p. 19.
[202] Ibid., p. 10.
[203] Idem.
[204] Idem.
[205] Ibid., p.13. Also SHAT, Prisonniers de guerre, 44, Division de la Police Secrète, 26 Nivôse An 12, préfet du Département de la Nièvre au Grand-Juge et Ministre de la Justice.
[206] Guineau, La Manufacture, p. 13.
[207] Ibid., pp. 16, 17.
[208] Ibid., p. 14.
[209] Archives communales, Chantilly, Year 12.
[210] Guineau, La Manufacture, p. 15.
[211] Ibid., p. 15.
[212] Ibid., p. 15.
[213] SHAT, Prisonniers de guerre, 26 Nivôse An 12, Division de la Police Secrète.
[214] A. N. F 12 2442, 1808-1809, Warburton.
[215] A. N. F 12 1007, November 1806, Merlin Hall to Champagny, Minister of the Interior.
[216] Ibid., May 1806, Stevenson.
[217] Ariès, Donation Millet, p. 10.

[218] A. N. F 12 1007, May 1806, Stevenson. See also the Illustration entitled: Engraving that accompanied the patent application of Jean Stevenson in May 1806.
[219] For an example of Creil Queensware that had been decorated by Stone and his partners see the Illustration entitled: Creil Queensware plate. Transfer printing by Stone, Coquerel & Le Gros, c. 1808. This plate is in my private collection.
[220] For an example of quality hand-painted creamware see the Illustration entitled: Wedgwood Queensware c. 1768. This plate is in my private collection.
[221] A. N. F 12 1012, 1808, Stone.
[222] Ariès, La Manufacture, pp. 14, 15.
[223] Ariès, La Donation, p. 10. Fourest says that Bagnall moved in 1803. Fourest, 'La Faïence Fine Française', p. 184.
[224] Idem.
[225] Ariès, La Manufacture, p. 24.
[226] A. N. F 12 1007, Bagnall.
[227] A. N. F 12 2442, February 1809, St. Cricq Casaux and Bagnoll (sic) to the Minister of the Interior.
[228] Ibid., February 1809.
[229] Ibid., 16 February, Minister for War to the Minister of the Interior. 'The authorisation that I have given him with regard to this has been sent on the request of the General Police'.
[230] Idem. 'A complaint concerning the permission granted to Mr. Warburton, Englishman by origin, to settle in the same place with the intention of practising the same profession'.
[231] Ibid., February 1809, St. Cricq Casaux and Bagnoll (sic), to the Minister of the Interior. 'dissolute, drunken, of bad character and without talent'.
[232] Ibid., quoted by the Minister of the Interior, March 1809.
[233] Idem. 'Warburton had never ceased to give proof of the most blameless morality'.
[234] Ibid., 24 March 1809, Minister of the Interior to the Minister of General Police.
[235] Ibid., March 1809, the 'préfet' of Oise to the Minister of the Interior.
[236] Idem.
[237] Idem. 'The scarcity of fuel demands the most rigorous exemption'.
[238] Ibid., April 1809. 'The Government could not possibly accept the request of Messrs. Casaux and Bagnol' (sic).
[239] Idem.
[240] Idem. 'They had no other intention than to get rid of the competition of a rival factory'.
[241] Idem. The Government 'should not serve as an instrument for private passions'.
[242] Idem.
[243] SHAT, 1 série, Prisonniers de guerre, 3 January 1804, Chaptal, Minister of the Interior to the Minister for War, referring to the excessive rigour of the latter's operatives.
[244] A. N. F 12 2442, April 1809, Minister for War.
[245] Guineau, La Manufacture, p.19.

Chapter 8

Conclusions.

8.1 Introduction.

The study of English Queensware and its impact on the French pottery industry, 1774-1814, has uncovered layers of historical significance that go beyond the parameters of pottery. The significance of Queensware in France has emerged as surprising and interesting. It is surprising because so little information existed in English ceramic historiography about its presence in France in the eighteenth century. It is interesting because it involves people and events that one would not necessarily associate with pottery. The extent of its influence was much wider than might have been expected of a basic everyday item that was both abundant and modestly priced.

The dimensions of its importance affected international trade treaties and moulded government policy with regard to industry and the use of coal technology. This ordinary English product obtained a firm hold in French markets, changed French consumer patterns and continued to do so even within a war economy. It constituted an element of the phenomenon known as 'anglomanie'. It was part of the wider issue of English smuggled goods that the French authorities could never keep out of France.

It also subsumed the ambiguous relationship that the French had with the English. While one part of the government machine tried to keep everything English out of France another part sought to imitate and copy the very products that were

undermining French markets. The irony of this situation did not go unnoticed by the French pottery community which was later encouraged to assimilate English methods and standards of manufacture and decoration.

There are questions that should now be asked about what has been learnt from this research on the transfer of English Queensware technology. There are industrial, technological, commercial, political and even social implications. Queensware together with 'anglomanie' and smuggling influenced French government policies. These policies touched on industrial espionage, technology transfer, entrepreneurial development and the adaptation of French industry to coal technology. The end product, French Queensware, did compete effectively. Queensware was a success story.

Certain points have been highlighted by this research. The evidence for the illegal presence of Queensware in France when total bans were in operation comes from the French archives and from documents emanating from the highest levels of the administrative hierarchy. The English sources are less than communicative on this issue. This suggests that the English manufacturers were tacitly colluding in the illegal exportation of Queensware to France. The theory is that they did this by employing less direct shipping methods through entrepôts and by using vessels employing neutral flags of convenience. Merchants and dealers could have been solely responsible but it is hardly likely that the manufacturers remained unaware.

The English Government probably observed and tolerated these smuggling activities. The French pottery manufacturers reiterated their conviction on various occasions that the English authorities protected, even subsidised, English Queensware. In general terms, the Committee of Master Potters in England did

have political clout and lobbied government figures like Lord Eden who was of use to them in formulating and determining English commercial policy. In this sense, the French were partially right in their assumptions. When they added that the English Government would go to any lengths to protect English industrial products and promote their export abroad, the French were doubtless thinking of the terms of the Treaty of Versailles. This prescribed the Treaty of Commerce and insisted that Queensware be allowed legal entry into France.

Throughout this thesis Josiah Wedgwood has been viewed as a paradigm for the contemporary English manufacturer. The Wedgwood Manuscripts constitute the only comprehensive extant body of eighteenth-century data in this country. It has been shown that Josiah Wedgwood had more experience of French industrial espionage in the Potteries than he admitted. Entrepreneurs in Douai were certainly not the only French manufacturers with contacts in the Staffordshire potteries. Prosecutions at regional Assizes, however few in number, show this to be the case. French factories were 'advertising for' and 'ordering' skilled workmen from the Potteries. There were instances where the first group of emigrant craftsmen was satisfactory and another contingent of specialists was requested and received. Workers from Wedgwood's factory had responded to foreign blandishments and offered their services as recruiters for others in the industry.

Wedgwood was not averse to indulging in counter-espionage to preserve his interests. His fabricated letter of enticement from a fictional recruiting 'agent' who could solicit his workmen reveals an unknown, unpublicised and ruthless side to this Potter to the Queen. Wedgwood had hoped to entrap potential emigrant

workmen. As a responsible employer and patriot he identified this as his duty. Commercial self-interest was justified but not mentioned.

There are indications that Wedgwood had further experience of industrial espionage in his factories. Cross-references between English and French sources have suggested that Wedgwood's 'Address' was much more than an histrionic diatribe impugning the illegal emigration of English industrial skills. He had probably lost several highly trained operatives to English enterprises abroad.

In his 'Address', Wedgwood inveighed at length against the reprehensible character and behaviour of the English agents and recruiters. He even passed information about notorious pottery recruiters to the eighteenth-century equivalent of a police force. His plea for patriotic rectitude and artisan responsibility can be interpreted as urgent expressions of concern if his own workmen were negotiating contracts with French manufacturers and preparing to suborn others. Wedgwood's position with regard to enticement was typical of manufacturers in the Potteries.

Similarly, English manufacturers were also involved in what French historians have called 'sharp practice'. Charges of English expertise in cheating French customs appear to be true. English files implicate Wedgwood and by analogy other English manufacturers. French potters claimed that the English were less than honest with the French customs officials after the duty on English pottery came into force in 1787. According to French accounts, they confused or overstretched the officers by coordinating the arrival of several shiploads within a short space of time. Another ploy was to overload the officials with complex paperwork. Most blatant was the practice of listing only a proportion of the pottery

shipment on the ship's manifest so that the duty became risible and encouraged further deception.

The French have argued that from the end of the seventeenth century the English had kept all the trading advantages to themselves and had not treated other powers like the French with anything akin to reciprocity. English manufacturers were again behaving in a cunning or 'sharp' manner by studying the requirements of the Treaty of Commerce and the exact wording and precise instructions that the customs officials worked to. This had come from informants in France. This interest in the exact specifications of the French documentation underpins what the French had said about the English.

This research also indicates that Queensware had become a political bludgeon used by the English Government from 1782 onwards to force the French to sue for peace. French officials understood that punitive measures would be taken if they refused to yield to English demands about English manufactured goods being allowed entry to French ports. Interdepartmental correspondence debated the dilemma.

The French authorities could not keep English pottery out of France. It changed French consumer patterns and influenced French taste for many years. Queensware democratised pottery consumption. This was, surprisingly, effected during the economic hardships experienced by a country often at war or experiencing political upheaval. The consumer changes took place at a grass-roots level among the French peasantry and country dwellers. Cheapness and availability simplified choices.

The French Government, from the early days of the Montereau factory, to the period of prescriptive restraint experienced by English workers and manufacturers after 1803, handled the Queensware industry with a degree of benevolent protection. The Queensware potters were still hostages and prisoners-of-war after 1803 but they were allowed to go about their business while other English workers in France petitioned the Government or languished in detention centres.

The result was that these entrepreneurs achieved a considerable amount in terms of quality production, successful technical applications, patents and public acclaim. The successful implantation of transfer printing changed the French pottery industry. It no longer remained a cottage industry. It moved towards mass production. It already had the mass consumerism.

English historiography of the Queensware industry in France has always been slender. This research based on French archival sources has corrected misconceptions and inaccuracies which have been passed on over the years. This has been a mapping exercise. The transfer of English Queensware technology extends and complements the work done by the late John Harris and presents opportunities for further research.

8.2 **Transfer of technology.**

The infusion of Queensware technology from the 1770s onwards proved to be a complex endeavour with some far-reaching aspects. Transfer printing and mocha decoration became part of French pottery technology. They moved the industry towards competitive production comparable to that in England. Coal-fired technology was also examined and postulated as a government policy. It is debatable whether French technocrats and government advisers advocated coal

as an integral part of any focused technological development or merely as a substitute fuel for wood. Supplies of wood were diminishing all over France and imports, even from the 'provinces réputées étrangères' within France, were expensive not least because of the tolls and dues incurred.

As far as Queensware was concerned, the high quality of the product could more easily be produced using coal, certainly by English potters in France. The Treaty of Commerce of 1786-87 and the Revolution put paid to any real attempts to bring coal technology to the pottery industry for decades to come. A treatise on Queensware production, written in 1807 by an English potter in France dealt at length with kilns fired with wood.[1] This indicates that coal remained a secondary fuel in the pottery industry. The interest in coal remained, especially for the metal industries and steam power. The Government had too many other issues to address. War and other economic problems like smuggling and inflation shifted the focus from the coal question.

The number of English artisans and entrepreneurs in France was never large and the incidence of Queensware manufactories was also limited till the 1800s when there was a temporary surge in Queensware production. English pottery technology was brought to France through the agency of industrial espionage and the recruitment of skilled workers. The English industry was not mechanised till later so the emphasis was on men and not machines. An English potter brought his expertise and know-how in his head and hands. The 'tours de main' and 'secrets' were essential components of the transfer process.

Established methods of production were balanced by the intangible and spontaneous aspects of manufacture. These were the result of years of

disciplined training, observation and apprenticeship. Such experience was invaluable and encouraged adaptability and innovatory responses to manufacturing situations. This was what the French wanted. This was why they needed English workers to come to France. In itself this was nothing new. The international exchange of technology had often been effected in this way. Descriptions and theories of processes fell short of actual demonstrations. The 'hands-on' approach was by far the best technological input and well worth the expenditure involved in suborning and recruiting English workers.

French potters themselves suggested that the manufacture of the English product, Queensware, was best achieved by employing English production methods and techniques. Potters and technocrats knew that good and sound Queensware could only be produced if the temperature of the firing was sufficiently high. This was achieved in England by firing with coal. Government inspectors advocated the adoption of English training methods and apprenticeship disciplines. Reports were written on the properties of English Queensware and invidious comparisons were made with the equivalent French product and the inadequacies, even dangers, of its glaze and body.

Government studies were made of English entrepreneurs and English factories. English processes were assessed and endorsed. Methods of decoration were observed and patents awarded to English craftsmen or entrepreneurs. The French pottery industry was infused with the first technological improvements that would impel it from the artisan approach to the early stages of factory methods and mass production.

English potters became partners in and owners of French Queensware establishments that were either royal manufactories or establishments with exclusive privileges. English manufacturers were also competent enough to win gold medals in national trade exhibitions. They submitted and received patents for processes that were in fact English but were unknown in France. Later benign government intervention still allowed them liberties when other English workers in France were being detained or imprisoned. Queensware in France was allowed to progress.

8.3 **Smuggling.**

This was an issue which preoccupied French government thinking for years and helped to formulate commercial, industrial and even political policy. The English had developed a pottery product that was so successful that the French consumer bought it to the exclusion of domestic products.[2] In the mid-1760s creamware entered the French market. There is little evidence for this in the extant records of English manufacturers of the period. It is the French themselves who assert that English pottery was coming into France at a steady pace that continued for many years to come.

It is likely that the English manufacturers had stockpiled wares in the 1760s when England was at war with France. When the war ended outlets were sought for these surplus goods. It may also have been that there was some kind of unofficial trade agreement as part of the peace treaty in 1763 which encouraged English imports into France. At the cessation of the next hostilities with France, in 1783, England was most insistent that no treaty of peace would be concluded unless trade concessions were negotiated and agreed. These were to allow English

goods, pottery and Queensware, into France. This time they made sure that they had it in writing in Clause 18 of the Treaty of Versailles.

In the 1760s the French were producing and exporting a fine white ware that had been identified as a possible threat to creamware. English creamware and its successor, Queensware, targeted French markets. Wedgwood's shibboleth, 'We shall conquer France in Burslem' encapsulated the attitude of the English manufacturers at this time. The French reacted in a typical protectionist manner by imposing bans on the introduction of English goods in 1770. The pottery caucus in England complained long and hard and lobbied the English Government. These import bans remained in force till 1787 when the Eden-Rayneval Treaty of Commerce opened the floodgates for legal English imports of Queensware.

Despite the bans, Queensware made steady inroads into French consumer patterns, particularly in the 1780s. The French Government backed the establishment of Queensware factories and gradual advances were made in developing the industry in France. There were stumbling blocks that impeded progress. These included the lack of coal-fired technology, the variations in raw materials and the lengthy training programme required to train French workers in Queensware production. Smuggled English goods constituted a threat to the French Queensware industry, also affecting English entrepreneurs despite government protection.

Once more the evidence for the presence of consignments of English Queensware in French markets comes from the French archives. The lack of English documentary proof does not undermine the reality of the situation as related by the

French. Its absence hints at an express policy of deception on the part of the English manufacturers. The fact that there is no information is suspicious especially when the French are precise in their description and reluctant acceptance of the situation.

Government figures like the Controller General of Finance wrote detailed reports on English smuggling to the King's Council. He commented on the French consumer's preference for the new and the fashionable in English goods. These views in 1785 underpinned the Council's attempts to address the problem of smuggling. It issued 'arrêts' which renewed fiscal and punitive measures against French merchants and dealers who had been charged with handling illegal foreign merchandise.

Government departments were set up to handle confiscated wares and protocols were developed to sell off contraband goods and reward informants. All this was going on when there should have been no English goods in France unless by special licence. While contemporary English manufacturers do not record that they were illegally pushing wares into closed French markets, French government documentation at the highest level shows that this was taking place.

Bureaucrats with special interest in commercial legislation reviewed French consumer patterns in the 1780s before the formulation of the Treaty of Commerce.[3] They concluded that the English had such a hold on French taste that they were unstoppable. They believed that measures required to effect a complete ban would be draconian and would exceed the tolerance of the people. Consequently, they were not put into practice. A corollary to this lack of stringency was that English goods were in shops everywhere. The official opinion was that

the English would infiltrate their goods to the very capital if the trade concessions they demanded were not forthcoming. They were capable of doing this.

The French Government had to allow English Queensware into France legally or there would be repercussions. Thus the whole smuggling issue had taken on a political and governmental aspect which affected the outcome of peace negotiations that were being conducted. In a loose analysis of the state of French pottery in the face of the relentless onslaught of smuggled English wares, government officials argued that negotiators should stipulate reciprocal pottery concessions with the English.

The French Queensware industry was sacrificed to greater political ends. France needed peace. The Treaty of Commerce was a bitter blow for French industry, especially for the potter, and had far-reaching effects in the years to come. The French Queensware industry survived till the resurgence of government interest in the 1790s and between 1800 and 1810.

After the Revolution the same preoccupations absorbed the French pottery manufacturer. Reports were drafted to the Government about English pottery and its illegal presence in France. Once more the import bans were not effective. Again there should have been no English goods in France. Despite this, they were available all over the country. This time, however, English Queensware was not limited to a more affluent clientele. According to the pottery manufacturer, Jousselin:

> Le luxe qui parcourt rapidement toutes les classes de la société a déjà porté jusque dans les maisons des cultivateurs de nos campagnes

beaucoup d'objets qui leur paroissaient jadis destinés exclusivement à l'usage des seigneurs et des grands.[4]

Workers, farmers, country people bought Queensware just as readily as town and city dwellers. Consumer patterns changed and moved across social barriers as quality, availability and cheapness dominated and re-educated the market.

Just as government ministers had commented on the changing tastes of the French public in the 1780s, their successors assessed market preferences in pottery in the late1790s. The Government could not regulate French consumer taste by legislation. The key to French sales was to produce a quality product that met the more demanding criteria of a less unsophisticated public. From 1793 onwards there was once more a ban on the importation of English Queensware. During the Peace of Amiens, 1802-3, this ban was lifted. Later smuggling resumed and remained a problem for the Government whose attempts to redress it were invariably unsuccessful. There was little that it could do to stem the persistent flow that penetrated French markets.

Once more the records of English manufacturers give little indication of this French market which was supposed to be blocked by the war. Yet again the French industrial archives indicate that there was English Queensware getting into France by the shipload. French shops in Paris were full of Queensware. French manufacturers were being disheartened and undermined by the continued presence of smuggled goods. There seemed to be no end to the pervasive influence of prohibited wares.

How English goods penetrated French markets in a climate of war and prohibition has been understated. In the past 'dummy' establishments had been set up in

French ports to falsify the provenance of English pottery. Smuggling had long been effected along porous French coastal routes and across neighbouring borders. Holland was a recognised entrepôt and the Belgian smuggling initiatives had been exploited to the advantage of the French treasury.

There is the likelihood that Ireland figured in the smuggling equation, with English goods being shipped to Ireland and then re-exported to France. There were flourishing Irish trading houses in French ports which sold Queensware in the 1780s despite the fact that concerted efforts had been made by English manufacturers to put Irish producers out of business.[5] Using Ireland as an entrepôt may be one reason why there was no evidence of English illegal exports to France. Clandestine penetration of English goods had an effect on French industrial and political affairs. Reports on smuggling still preoccupied the French Government as late as 1812.

8.4 Government intervention.

Since the 1750s there had been a strong interest in English industry and technological techniques on the part of French bureaucrats and ministers. They financed and organised industrial espionage missions to England. English workers, managers and manufacturers were enticed to France to develop French industry. In the 1750s blueprints for industrial espionage in England were drawn up by government inspectors or high-ranking administrators. These were drafted anew in the 1770s.

Spying initiatives were continued and the operation of a small espionage network in England was maintained with contacts in the key industries in the manufacturing

areas. Orders could be placed for specific skills or specialist workers. Intermediaries or agents then handled the actual recruitment.

The French Embassy in London played a role in suborning English workers by acting as an intermediary for skilled craftsmen who were interested in taking their expertise abroad. Funds and mail passing between English workmen and their foreign contacts could go through the Embassy with diplomatic immunity. The English secret service was thereby unable to interfere or intercept.

Government intervention in industrial affairs operated in the Ancien Régime through the agency of the King's Council, the Council of the Bureau for Trade and the Ministry of Finance. The King's Council passed 'arrêts' and awarded letters patent that legitimised the manufacturing establishments. It also granted exclusive privileges which empowered the factory to operate with special dispensation, within a given area, for a limited period of time.

A few specialist manufacturers exploited the exclusivity of the title Manufacture Royale which was granted only to factories that were involved in developing 'new' or 'unique' products.[6] The 'Royal' title was bestowed at the discretion of the Controller General of Finance. He could award grants, loans and in some cases cash gifts.[7] The King's Council also arbitrated in debates between employers and their workers or apprentices.

The Council of the Bureau for Trade dealt with the permits and documents that were required for every aspect of setting up and operating a factory. In addition, the manufacturers had to apply for licences to extract wood, coal, clay or raw materials from French locations or to import them from abroad or from the 'provinces réputées étrangères' within France.

The Bureau of Factory Inspectors was initially involved in seeing that the government factory regulations were adhered to and that manufactories maintained standards of quality. Government officials and experts were often factory inspectors as well as scientists, bureaucrats, industrialists or administrators. They contributed to French industrial development including the pottery industry.

The Treaty of Commerce of 1787 was the result of government involvement that put political issues before industrial and commercial considerations. The French Queensware and pottery industry became expendable in manoeuvres of political expediency. In reports written later to the Government, potters recriminated against the calculated abandonment of the Queensware industry.

After the Revolution, laws were passed which once more banned English goods.[8] Later special licences permitted the importation of certain items. Industry was opened up to the general citizenry when factory regulations and corporations were abolished with many other Ancien Régime institutions like the Factory Inspectorate and the Council for Trade. At a later date some of these bodies crept back to function under different names.

A French Patent Office was opened and laws passed to protect and encourage innovative manufacturers who wished to safeguard processes or inventions. A national manufacturing Conservatoire together with trade exhibitions were funded by the Government along with newspapers that published industrial and manufacturing news.

Entrepreneurial opportunities and self-sufficiency were stressed by the Government. The sequestered properties of émigrés and the Church were offered

as agricultural or industrial investments. Several Queensware manufacturers exploited 'biens nationaux' to establish factories or extend existing businesses.

Government loans were made to manufacturers involved in supplying the war effort or in refurbishing the Imperial residences. Few earthenware potters received loans unless it was part of a specific government policy to block the penetration of English Queensware into French markets. Sometimes a quality product was rewarded. In Rouen a manufacturer of Queensware 'imitant les poteries anglaises d'une grande perfection' was granted a substantial sum to maintain production.[9]

There were times when government intervention took an unexpected form. The first time was in 1793 when all English visitors, residents and workers, male and female, were declared 'prisoners-of-war' and imprisoned or kept under surveillance for some time. Then, in 1802, before the Peace of Amiens, government ministers sent invitations to English manufacturers to come to France. This was industrial espionage while the two countries were still at war. English entrepreneurs responded by coming to France even before the Treaty was signed. English Queensware potters came to France in 1802 and established new manufactories with varying degrees of success. The Government wanted French industry to benefit from the infusion of English technical expertise which English workers would bring. This was government intervention combined with industrial espionage.

In Year 11 the décret du 22 Prairial surprised many English entrepreneurs in France. Bonaparte declared that all male English residents, visitors or workers in France were 'hostages' and subject to immediate restrictions. They were kept under surveillance in holding camps or in detention centres all over France.

Dispensations from the regulations, travel permits, work cards and passports were granted to certain key workers.

Many, however, were forced away from their workplace or denied the freedom of movement that their work entailed. As hostages held to ransom for the good treatment of French prisoners-of-war in England, the English workers appealed to the Minister of the Interior for help. The Queensware industry, however, and the English workers involved in it, were little affected by the implications of the Prairial decree.

8.5 **Historiography.**

The way that the French and the English looked at technology was different. The French Government employed scholars, scientists and academicians to investigate and assess new industrial and technological processes which could be translated to French industry. Trials, tests and reports often delayed the French entrepreneur for months before the Government gave its permission for the new initiative to operate with legal sanction.[10]

In England the entrepreneur or owner often relied to a great extent on the innovatory and adaptive skills of his managers and foremen. The focus of technological creativity was therefore internalised within the factory and by extension within the industry. The French brought in academics and externalised innovation. The English allowed a natural process of technological development to take place and in so doing preserved an internal integrity within the industry.

Each approach reflected national culture. One was 'dirigiste'. The other was evolutionary. One was theoretical and limited in successful application. The other

was pragmatic and highly successful. This is why the French Government wanted English workers in France, to transplant the best of English evolutionary technology.

As regards the theories of economic history which debated the industrial development of France in the eighteenth century, there are several conclusions that have been drawn. Locke's theories about a proto-industrial economy have marginalized the French Government's efforts to bring foreign industries to France by means of technology transfer. This translation of industrial expertise dates from the beginning of the eighteenth century and had accelerated in the 1750s under the anglophile influence of administrators like the Trudaines and the Holkers.

French industry did retain its cottage aspect for some time but in a society where the majority of the population remained firmly rural-based this is hardly surprising. When consumer demands re-shaped the pattern of domestic consumption, French industry began to adapt and streamline its production to cater for the mass market that it hoped to prise from the English. Technological and technical improvements embedded in French industry by English entrepreneurs and craftsmen in France empowered certain manufacturing areas to move beyond the cottage industry watershed. This was the case in the French Queensware industry where 'demand and supply' underpinned manufacturing development.

As regards the argument that industry and the economy in France were backward because of the lack of entrepreneurial dynamism there is some justification for this interpretation.[11] As a general assessment of French managers and factory owners it holds true. Archival evidence indicates that this was the case after the

Revolution. At this time there was a push on the part of the Government to encourage manufacturing independence and innovation.

The reports from potters to government ministers may have been a reflection of what the authorities wanted to hear, a kind of industrial sycophancy. What gives these criticisms of French industry validity is that they were often written by practising manufacturers who did not like what they saw among their fellow potters. They upbraided them for the lack of imagination and innovation that was current among French entrepreneurs between 1790 and 1810.

In the Ancien Régime the private manufacturer, without the financial, fiscal or administrative backing of the Government, was inhibited by the monopolies and privileges enjoyed by rival manufacturers with royal favour.[12] Manufactures Royales were restricted in number but there were many factories with exclusive privileges that gave them advantages for a set period of time within a given area. The private manufacturer was further restricted in his essays into entrepreneurial dynamism by the factory regulations imposed by the Government and supervised by the Factory Inspectorate. An additional inhibitory factor was the regulatory control of the corporations[13] although their power had been steadily on the decline for decades.[14]

The corporations supervised the contracts that were drawn up between apprentices, journeymen and employers. Every aspect of the working relationship was codified.[15] The regulations that covered the existence and daily function of the factory were also prescribed by government 'arrêts' and letters patent. All aspects of factory life were controlled by the State: hours of work, holy days, rates of pay, 'livrets', 'billets de congé', course of action in disputes between employers

and workers or apprentices.[16] In industrial disputes there was seldom recourse to the corporation which was more involved in the legal aspect of running corporate business than in settling employment misunderstandings.[17] If government officials like the Intendant of the region or his staff could not resolve industrial disputes, the apprentice or worker could appeal to the King's Council for satisfaction. It was, therefore, not without reason that the entrepreneur in the Ancien Régime remained inhibited and unimaginative.

Landes blamed the lack of entrepreneurial dynamism in France for the slow development of the French economy in the Ancien Régime. He should, however, have taken certain moderating factors into account. The difficulties of the unprotected entrepreneur in the Ancien Régime were considerable. The advances made in the Queensware industry occurred in 'protected' environments. The French Government was involved at different levels of the initiative. This included bringing the English specialists from England and granting dispensations and exemptions to Queensware establishments. Even when private individuals had brought English workers to France as an act of free enterprise, they claimed reimbursement from the State for the costs of enticement as well as travel expenses for the craftsmen and their families.

After the land settlement following the Revolution[18] and the added assurance of a share in any inheritance under the Code Civil,[19] there were undoubtedly many workers in France who were landowners, property owners and even shareholders.[20] The value of what was owned may not have been substantial but the autonomous status of the French citizen altered his perspectives both as a worker and as a consumer.

After the Revolution, the opportunity to purchase a 'bien national' which could be exploited as a factory and workshop turned workers into land owners and property owners. This included English potters. Some of the English manufacturers applied for French citizenship so that their wives and families could inherit their property.[21] Gone were the times in the Ancien Régime when a foreign worker need only serve three years in a French factory to be awarded citizenship and have his goods thereby safeguarded.[22] Sometimes in special factories, foreign entrepreneurs had been granted immediate exemption from the escheat tax. This was tantamount to granting the foreign national temporary French nationality. English Queensware managers in Montereau, Douai and Rouen had been granted this dispensation. Napoleon and the Code Civil were not quite so accommodating to foreign nationals.

The Revolution may even have been a 'necessary pre-requisite for industrialization'. France could only then realise its potential for growth. The decades of English smuggled goods and the inimical effects of the Treaty of Commerce of 1786-7 had already undermined industry. The Revolution actually opened up new opportunities for development for entrepreneurs with flair and dynamism. Some of these were English. English Queensware in France faltered initially under the cumulative effects of the Treaty of Commerce and the Revolution but it survived.

The issue of coal affected the French economy on a variety of levels. The wood shortage had limited the number of industrial concerns that a region could accommodate. The French Government tried to push the use of coal in furnace

and kiln technologies. This initiative was not a resounding success. Thus, on one level coal was a substitute for wood.

On another more urgent level, coal represented English industrial power and technological prowess. It was not enough to have coal. One had to know what to do with it. Precise firing techniques maintained the inexorable pace of English technological evolution. Various French observers had grasped the fact that coal was the key to manufacturing success. The French had discovered that coal-fired technology required skills that they had to import and implant. It all took time, however.

The fact that France had a large peasant population did not retard the French economy. The rural population was autonomous and land owning. With this came social choice and economic decision-making.[23] It constituted a market for manufactured goods.[24] This is what the French industrial archives indicate with regard to Queensware. Consumer patterns changed as ordinary English earthenware democratised French taste. 'Anglomanie' reinforced this preference and encouraged the continued incidence of smuggled goods in French markets. The transfer of English pottery technology brought sound, cheap goods within the purchasing power of a much wider section of the population.

As regards the historiography of ceramic history, English workers were known to be in France in the eighteenth century. Minimal information about these pottery workers has been passed from one English ceramic historian to the next. This aspect of ceramic history contains errors of information and has given rise to generalities which underestimate the facts of the situation as deduced from archival sources.

Within the parameters of this research alone there are published factual errors in connection with the English factories and entrepreneurs at Montereau, Douai, Creil, Prince des Galles and Chantilly as well as omissions at Andenne. The English entrepreneurs involved are George Shaw, William Clark, Charles Leigh, James Leigh and Christopher Potter. The majority of the inaccuracies occur with reference to the factories at Montereau and Douai.

Solon had written about a Ralph Shaw who had worked at Montereau.[25] First of all, it was George Shaw who managed the factory at Montereau with William Clark. He did not just happen to settle in Montereau after drifting from place to place. He had been suborned, recruited by John Holker (fils) in England and he arrived in 1774 expressly to set up a Queensware manufactory. The factory at Creil was initially a separate and thriving, rival concern although the first quasi-merger took place in 1819 and the two firms merged legally in 1848.[26]

Contrary to what English ceramic historians have said for years, files in the Archives Nationales indicate that the manufactory at Montereau was financed by an Inspector General for Foreign Manufactures, John Holker (fils) together with two Irish financiers and bankers with long-standing connections in Rouen, Anthony and Robert Garvey. A grant of 1200 livres tournois was granted by Turgot, the Controller General of Finance, and was paid for nine years.

During the first few years of the factory's production the goods were successful enough to be sold in Paris in a shop that specialised in English wares. Benjamin Franklin, the Ambassador to the newly created United States of America, purchased a Montereau Queensware dinner service for his official residence in Passy. The Montereau factory was granted the honorary title of 'Manufactory to

the Queen'. Merlin Hall was not English. He was a Frenchman by the name of Merlin who had married the widow of the English manager and owner, Jean Hall. As manager of the factory, he called himself Merlin Hall.[27] The English aspect of the establishment endured.

The Rhead brothers had said much the same as Solon about the incidence of English workers in France in the eighteenth century. Like Solon, the details that they gave contained imprecision in dates and names. The grant awarded to Montereau was not in francs but in livres tournois and the town of Creil was incorrectly spelt as was the name of Shaw's partner.

Donald Towner states that the founder of the Montereau factory, Le Mazois, had English partners. The Archives Nationales indicate that Le Mazois brought an English kiln expert to Montereau to construct a special English kiln.[28] This was Hill. Le Mazois did bring in other English experts to help with the salt-glaze manufacture. One of these was called Warburton.[29] This was not the same Warburton who opened a Queensware factory in La Charité in 1802[30] as has been claimed by other historians.[31] It does not appear that these men were partners.

As regards the period when Clark and Shaw were at Montereau, Towner repeats the same inaccuracies as Solon and the Rheads. His statement about the production of 'whiteware' may be referring to the white properties of the body and glaze. In the early stages of Queensware manufacture a yellow-tinged or canary yellow creamware was sometimes produced in France. He also subscribes to the erroneous argument about Ralph Shaw. He suggests that the man who had been involved in the court case in 1736 in the Stafford Assizes also worked at the Montereau factory in 1774.[32]

With reference to the Douai factory, it is highly improbable that the Leighs turned up in Douai without already having secured employment and a firm contract with a French entrepreneur. The owner of the Douai factory later 'advertised' for specialist English craftsmen in the Potteries and received a reply from one of Wedgwood's own workmen. This pottery worker was prepared to recruit other specialist workers that the Frenchman had specified. This was probably how this French manufacturer had acquired the services of the Leighs. He had worked through an agent or contact in England who dealt in enticement and industrial recruitment of English artisans.

English workmen had to be prepared to break the law by selling their expertise to a foreign entrepreneur. There were cases at the Stafford Assizes against a potter who was a recruiting agent for employers in France. The individual concerned could have been the Douai manufacturer's contact in the Potteries.[33] Douai did acquire the services of the specialist potters that the management had solicited. The Wedgwood operative's letter was intercepted and his offer came to nothing.

As regards the importation of English pottery wares mentioned by the English ceramic historians, there was in fact a complete ban in operation from 1770. A considerable traffic in smuggled goods was conducted because English Queensware was so popular with the French consumer. This was why French businessmen wanted to set up English factories with English workers to produce English pottery.

It has been argued in the secondary literature that religious considerations may have motivated some Catholic workers and entrepreneurs to move to France. To say that artisans left England to escape danger at the hands of religious bigots is

not in keeping with recent scholarship. This indicates that there had been a mellowing of tensions in the late 1770s and that the Gordon Riots were an exception to this amelioration in attitude.

The executive power at the Douai factory was not in the hands of the Englishmen but with the owner who dissolved the first contract with them and sold his interest to a conglomerate of professional men in Douai after two years.[34] In this concern, out of twelve shareholders, the Leighs only had one joint share, although they did remain partners in the business.[35] Houzé de l'Aulnoit, a lawyer and government official, was the main spokesman for the company. The letters patent and the exclusive privileges that were later granted to the company were in his name.

In his account of the Douai establishment, Towner starts off by giving one of the brothers the wrong name. His explanation that religious persecution was responsible for the presence of English entrepreneurs in France is limiting. Their presence is accepted. There is no debate as to how they managed to get out of England and infiltrate the borders of an enemy country that was at war with England. In addition, France was a country where government controls on movement were strict.[36]

There is no mention of the treasonable aspect of their emigration to a hostile power to offer their technical skills. There is also no curiosity about how they traversed France without either a passport or an 'aveu' which attested to their moral character. The web of intrigue behind their arrival is lost in the religious explanation. The historiography of technology has been done a disservice. The whole question of emigration in the eighteenth century presses and intrigues.

The disappointing aspect about this explanation is that French ceramic historians like Henry-Pierre Fourest and Maddy Ariès subscribe to the persecution hypothesis. Donald Towner's article on English creamware in a French ceramic revue is probably responsible for this.[37] Religion may have been a contributory factor.

The main reason why English workers were in France in the eighteenth century was because they had been suborned, recruited and paid to come to France by agents and intermediaries of the French Government or of private businessmen. They were part of a government policy of industrial espionage and the transfer of industrial technology. The record has at last been put straight as these errors and preconceptions have been rectified.

8.6 Impact of Queensware.

The premise of this thesis has been to reveal that English Queensware had an impact on the French pottery industry in the eighteenth and early nineteenth centuries. The aim has been to show how something as ordinary as pottery could penetrate government thinking, affect trade treaties, alter French consumer patterns and bring the manufacture of pottery in France out of the cottage-industry syndrome and into the first stages of mass production. It also turned English manufacturers and merchants into consummate clandestine exporters with the tacit approval of the English Government. Smuggling became an important issue for the French at a ministerial as well as an industrial level.

These changes were effected in France through the agency of English potters and entrepreneurs who were recruited in England and brought to France with the cognisance and backing of the French Government. The numbers of Englishmen

involved were never large but their influence was felt as exclusive privileges, monopolies, patents and gold medals were granted to them for their contribution to the French pottery industry. Some remained in France and became revered and influential members of their community. Others were not so fortunate and struggled to return home in difficult wartime conditions. One or two of them became agents for the French Government and returned on recruiting missions to England.

The arrival of these English craftsmen in France involved industrial espionage in England and the transfer of English technology to French industry. These activities were underpinned by the financial, administrative and fiscal support of the French Government. The process was slow but persistent. These activities took place even when relations between France and England were on a war footing. Subornment of English workers was a tricky endeavour as there were government statutes in England which prohibited the emigration of skilled artisans to a foreign power. Fines and imprisonment threatened the enticer and recruiter.[38] Josiah Wedgwood was the spokesman for the Committee of English Pottery Manufacturers that had been instrumental in having these royal statutes drawn up to inhibit the leakage of industrial skills to foreign manufacturers.[39]

The French were not the only clandestine recruiters of English talent and expertise. The Swedes were equally determined to leach as many metallurgical skills and workers as possible and had some success in their endeavours.[40] They also outsold and undercut English manufacturers in English markets.[41]

Josiah Wedgwood appears in this thesis because his unpublished business correspondence constitutes an extant pottery archive of the eighteenth century.

Besides being Chairman of the Master Potters he was also the spokesman for his fellow pottery manufacturers in the Chamber of Commerce in the 1780s.[42] As a successful entrepreneur, Wedgwood was an inveterate lobbyist and petitioner in government circles to protect his own and his industry's interests. His attitudes and activities with regards to industrial espionage and exports to France should be viewed as typical of his fellow English potters and businessmen in the latter quartile of the eighteenth century. His is the only comprehensive archive that we can study.

Industrial espionage and the transfer of English technology took place during the Ancien Régime and in the regimes that followed the Revolution with little regard to wars, trade embargoes or blockades. French consumer patterns altered to encompass a prevailing taste for English manufactured goods. This tendency to buy English products instead of French domestic wares was given a special name by the French, 'anglomanie'. This term was widely used in manufacturers' reports to the Government.[43] English pottery was particularly popular and the best seller was Queensware which managed to dominate French markets because of its quality, durability and cheapness in comparison to French products.

Despite the continued efforts of the French Government, English Queensware maintained a steady penetration of the French market place and shops everywhere were full of it. French potters viewed this situation with dismay and commented on the fact that even peasants used Queensware in their homes. This is of some marketing significance as a major proportion of a French population of 28 millions lived in a rural environment in 1790.

The very name Queensware is misleading. It evokes images of elegant, expensive, fragile pottery that exists in museums and private collections. These are the few extant examples that remain today. They were probably special pieces to begin with that were tucked away safely in dressers or cupboards and were not in general use. The early French pieces also catered for a more discerning and affluent clientele. They were not representative of the vast majority of ordinary, serviceable and cheap everyday pots that arrived in France from England. They broke and could be replaced cheaply all over France.

Queensware was a generic name, an identifying term for a pot type that was made by the million. In its day it happened to be a better and cheaper commodity than was generally available in countries all over Europe. The fact that peasants and farmers bought it and had it in their homes was part of a consumer trend that focused on English goods before 1789 and after it. French pottery manufacturers stated that the taste of the ordinary Frenchman had changed since the Revolution. The customer knew what he wanted and was indirectly forcing French potters to produce imitation English wares including Queensware to remain in operation. The French market was being consumer-driven for a foreign product that would become fully integrated into French manufacturing. All this was taking place while France was at war with England.

This thesis remains focused on the impact of English Queensware, English entrepreneurs and English smuggled goods in France. The ingenuity and skill of the master craftsman and the adroit worker embedded the transfer of English technology. English workers responded to the vagaries of production with a

natural spontaneity born of years of apprenticeship and practical experience underpinned by observation.

In England a pottery apprentice signed an indenture for five, six, seven and even nine years, depending on the trade being acquired.[44] In France the contract with the employer through the trade corporation was for three years.[45] English workmen were better trained as they had longer to acquire the requisite skills. It was not just this training that the French employers wanted. It was the unwritten body of manual and technical responses to production techniques that they wanted, the menial everyday actions that ensured successful manufacture. They were aware that craft skills needed to be demonstrated not simply written about.

The treatise on the 'Art of the Earthenware Potter' heralded an appreciation of the importance of the manual dexterities required in such a craft activity. It was, however, an attempt by an academic and scientist, Duhamel Du Monceau, to describe craft skills.[46] The Government and the Royal Academy of Sciences understood the need to see a process demonstrated before privileges or grants were granted to the practitioner or inventor of some new technique or procedure. The French wanted English workers to man their French factories not only for their manual skills but for what was in their heads. When these English workers trained French potters and apprentices these unwritten 'secrets' and 'tours de main' could be transferred to French industrial practice.

The issue of industrial espionage and the persistent illegal transfer of industrial technology were inevitable concomitants of English manufacturing excellence. The fact that other nations wanted to steal English industrial expertise was proof that England was far ahead in this domain. For a nation of just over nine million in

1775 Britain was doing very well, or so the Calendar of Home Office Papers reported.[47] The French with a population about three times as large on the eve of the French Revolution was also thriving but in a different way.

French pottery and ceramics at the end of the eighteenth century are often associated with porcelain made at Sèvres or Vincennes or one of the other Paris porcelain factories.[48] Specialist items like Rouen tin-glaze or Strasbourg wares were also known at home and abroad. It is unlikely that anyone would think of Queensware in this context. The aim of this thesis is to show that there had been English Queensware in France for decades. It was bought by the French and smuggled by the English according to French accounts. While clandestine imports of English Queensware continued to appear in French markets, the French decided that they must compete on their own terms by imitating the Queensware product.

It was manufactured in factories established expressly for that purpose and managed by English potters and craftsmen. These are the factories that have been used in the research for this thesis. There were other factories making Queensware in other parts of France. There was even a Queensware boom in the 1800s around the Paris region but this was short-lived.

Transfer printing and mocha decoration also had their impact on the manufacture of pottery in France. The end result of this infusion of English pottery technology was that there was established in France a Queensware industry that produced wares of such quality that they could compete effectively with the best of the English product. As I write now I have before me examples of French Queensware manufactured in Creil and Montereau around 1806 and an earlier

example of hand-painted English Queensware made by Wedgwood around 1768. They are similar in weight, colour, texture and finish, even if the forms are different.

These French pieces have the additional historical distinction of being decorated by the mocha technique or the transfer printing process that were patented by English entrepreneurs in France in 1806 and 1808 respectively. It was these processes that did so much to streamline and speed up pottery production. Through them the first steps were taken in French pottery manufacture towards mass production for a growing market. The French consumer continued to buy Queensware but it was increasingly French Queensware. This was an effective transfer of English technology.

What would have happened to the French pottery industry had Queensware not appeared on the scene? It would probably have remained entrenched in local, cottage production for the domestic market, producing the same wares with little view to change. Salt-glaze products from Holland or Germany would likely have dominated the French market. The duc de Brancas Lauraguais might have been given government backing to develop his white high-fired pottery.

Tin-glaze and stoneware would also have maintained their share of a more diversified market. Specialist wares and porcelain would have continued to find their niche in the more affluent markets. New products from abroad would have been imitated and assimilated. White ware might have skipped a stage and become china ware instead of creamware and Queensware. Dutch and German entrepreneurs might have moved the French pottery industry into a more competitive configuration.

Pottery tastes would probably not have changed so much or so early and 'anglomanie' would not have affected consumer trends to such an extent. Smuggling would not have exerted the influence that it did on political, commercial, industrial and social levels. Local chambers of commerce throughout the land might not have been encouraged to draw up lists of fiscal and commercial grievances in 1789. Queensware would have been missed.

As regards the question of further research, this thesis has unearthed nuggets of academic interest. Industrial espionage in the Potteries is a driving theme. Wedgwood and his connections with France are a particular interest. The issue of the transfer of English technology to foreign powers is also dominant. The role of skills in the historiography of technology transfer is part of a current trend in historical research and invites participation.

The question of emigration in the eighteenth and early nineteenth centuries poses questions that merit investigation. Many of the workers or entrepreneurs took wives and families with them when they offered their skills abroad. The role of women and widows in these emigrations merits attention. English workers in French potteries is a general theme of interest that could follow on from this research. The general incidence of English workers in French factories, also interests. Studies in failure like that of Warburton may be more common than we think.

The aftermath of the Prairial decree is a period that certainly requires more research and greater historical exposure. The status of English workers in France as 'hostages' and 'prisoners-of-war' is an area of future study. Potter and his role in the development of French industry is also worthy of further investigation. The

French archives beckon once more.

Chapter 8 Endnotes.

[1] O (Oppenheim), ancien manufacturier, L'Art d'imprimer sur Faïence et Porcelaine. Les procédés et nouvelles découvertes (Paris, 1807), pp. 52-56.
[2] Fourmy, 'Mémoire sur les Hygiocérames', a paper presented to the French Academy, 1801.
[3] Eleutherian, A A E M/D 65 Affaires Etrangères, Du Pont de Nemours. Du Pont and another Inspector General for Manufactures worked on this market research, assisted by Graviers de Vergennes, the nephew of the minister, Vergennes.
[4] A. N. F 12 1559, July 1806, Jousselin. 'Luxury that is spreading rapidly through all classes of society has already brought even to the homes of farmers in our rural areas lots of things that would previously have appeared to them to be destined exclusively for the use of the noble and the great'.
[5] Peter Francis, 'Irish Creamware: The Downshire Pottery in Belfast', English Ceramic Circle Transactions, 15 Part 3 (1995), p. 402. Francis states that Wedgwood and his agents in Ireland used various marketing ploys to make business difficult for Irish factories.
[6] Pierre Deyon and Philippe Guignet, 'The Royal Manufactures and Economic and Technological Progress in France before the Industrial Revolution', Journal of European Economic History, 9 (1980), p. 629. Also A.N. F 12 91 fo 497 and A.N. F12 1497, 21 September 1776, Observations des Maîtres Gardes on the nature of a 'manufacture royale'.
[7] Deyon and Guignet, 'Royal Manufactures', pp. 631, 632.
[8] A.N. F 12 1498 A, loi du 12 septembre 1791; loi du 10 Brumaire An 5; décret impérial de Berlin, 21 novembre 1806, le blocus continental; décret de Fontainebleau, 13 octobre 1807; décret de Milan, 23 novembre 1807.
[9] Ibid., 1802, Delavigne, Rouen, fabrique de poteries imitant les poteries anglaises d'une grande perfection. 'A factory imitating English pottery to a high degree of perfection'. Delavigne obtained a loan for 40 000 francs.
[10] Ibid., Christopher Potter, application for an exclusive privilege, July 1789.
[11] David Landes, 'French Business and Businessmen: A Social and Cultural Analysis', in E. M. Earle (ed.) Modern France (Princeton, N. J., 1951), passim.
[12] Deyon and Guignet, 'The Royal Manufactures', passim; p. 629.
[13] Statuts des Maîtres Potiers de Terre, Gerspach, Documents sur les anciennes faïenceries françaises, passim.
[14] Michael Sonenscher, Work and Wages. Natural Law, Politics and the eighteenth-century French Trades (Cambridge, 1989), pp. 107-8, 241, 273, 282, 291. Turgot abolished the corporations in 1776. They were, however, reinstated in 1778.
[15] Statuts des Maîtres Potiers de Terre, Gerspach, Documents , pp. 8-20.
[16] Deyon and Guignet, 'The Royal Manufactures', pp. 631-2.
[17] Sonenscher, Work and Wages, pp. 32-38.
[18] Colin Heywood, 'The Role of the Peasantry in French Industrialization, 1815-1880', in The Economic History Review, Second Series, Vol. XXXIV, No. 3 (August 1981), passim; p. 360.

[19] Code Civil des Français, Edition originale et seule officielle (Paris, 1804), Loi du 4 pluviôse an XII, sur la distinction des biens; Loi du 6 pluviôse an XII, sur la propriété, p. 417, Sur la Réunion des Lois civiles en un seul corps, sous le titre de Code civil des Français. Also Livre III, Des Successions, p. 131.
[20] Heywood, 'The Role of the Peasantry'. Also Tom Kemp, 'French Economic Performance: Some New Views critically Examined', European History Quarterly, vol. 15 (1985), pp. 47-88.
[21] A. N. F 12 1559, 12 June 1515, Bagnall.
[22] Elphège Frémy, Histoire de la Manufacture royale des glaces de France au XVIIe siècle et au XVIIIe siècle (Paris, 1909), Archives de la Compagnie de St. Gobain, 1786, p. 427.
[23] Tom Kemp, 'French Economic Performance: Some New Views critically Examined', pp. 47-88.
[24] Heywood, 'The Role of the Peasantry in French Industrialization', p. 360.
[25] Solon, The Art of the Old English Potter, pp. 257-259.
[26] A. N. F12 1007, Creil.
[27] Maddy Ariès, Donation Millet (Sceaux, 1979), p. 11.
[28] A. N. F12 96, 3 September 1749, Le Mazois.
[29] A. N. F 12 2380, 1756, Le Mazois at Montereau. Warburton conducted tests on the different kinds of salt that could be used in salt-glaze manufacture.
[30] S H A T, Bureau des Prisonniers de guerre, 1802, Warburton.
[31] Maddy Ariès, La Manufacture de Creil (1797-1895) (Paris, 1974), p. 27.
[32] Llewellynn Jewitt, The Ceramic Art of Great Britain (New York, 1883), p. 435.
[33] The indicted potter, Perry, shared the same surname as the wife of one of the Leighs. Mlle. Chapard, Curateur, Chantilly, interview with the author. Mary Anne Perry was the wife of James Leigh. Leigh had worked in Chantilly in Year 4.
[34] Aimé-Houzé de l'Aulnoit, Essai sur les Faïences de Douai dites grès anglais (Lille, 1882), pp. 7, 8, 18, 35.
[35] Ibid., pp. 70,73, 75, 90.
[36] John Torpey, The Invention of the Passport. Surveillance, Citizenship and the State (Cambridge, 2000), p. 21.
[37] Donald Towner, 'La Faïence Fine Anglaise de couleur crème', Cahiers de la Céramique, du Verre et des Arts du Feu, No. 10 (1958).
[38] Statute 5th. Geo. Ch. 27
[39] Llewellynn Jewitt, The Ceramic Art of Great Britain (New York, 1883), p. 213, Wedgwood as chairman of the Manufacturers of Earthenware in Staffordshire.
[40] Joseph Redington, Calendar of Home Office Papers 1760-65 (London, 1878), 26 June, Dom. Geo. III., pel. 76, No. 47b 1359, Mr. Samuel Garbett to Lovell Stanhope, Esq., p. 420.
[41] Ibid., 9 Nov., Dom. Geo III., pel. 77, No. 62 2000 Mr. Samuel Garbett to William Burke, Esq., p. 620. The Swedes concentrated on plate and bar iron.
[42] Witt Bowden, Industrial Society in England towards the end of the Eighteenth Century (London, 1965), pp. 186-187.
[43] A. N. F 12 1498 A An 7, Moitte; 1559, An 5, Mayeuvre, An 6, Minister of the Interior.
[44] Indenture, 10 July 1738, between Richard Parrott of Burslem and John Wedgwood of Burslem, potter, for seven years. Indenture, 11 November 1779 between John Lees and Josiah Wedgwood of Eturia, for nine years 'to learn the art and business of a painter of Earthenware'. Indenture, 20 January 1797,

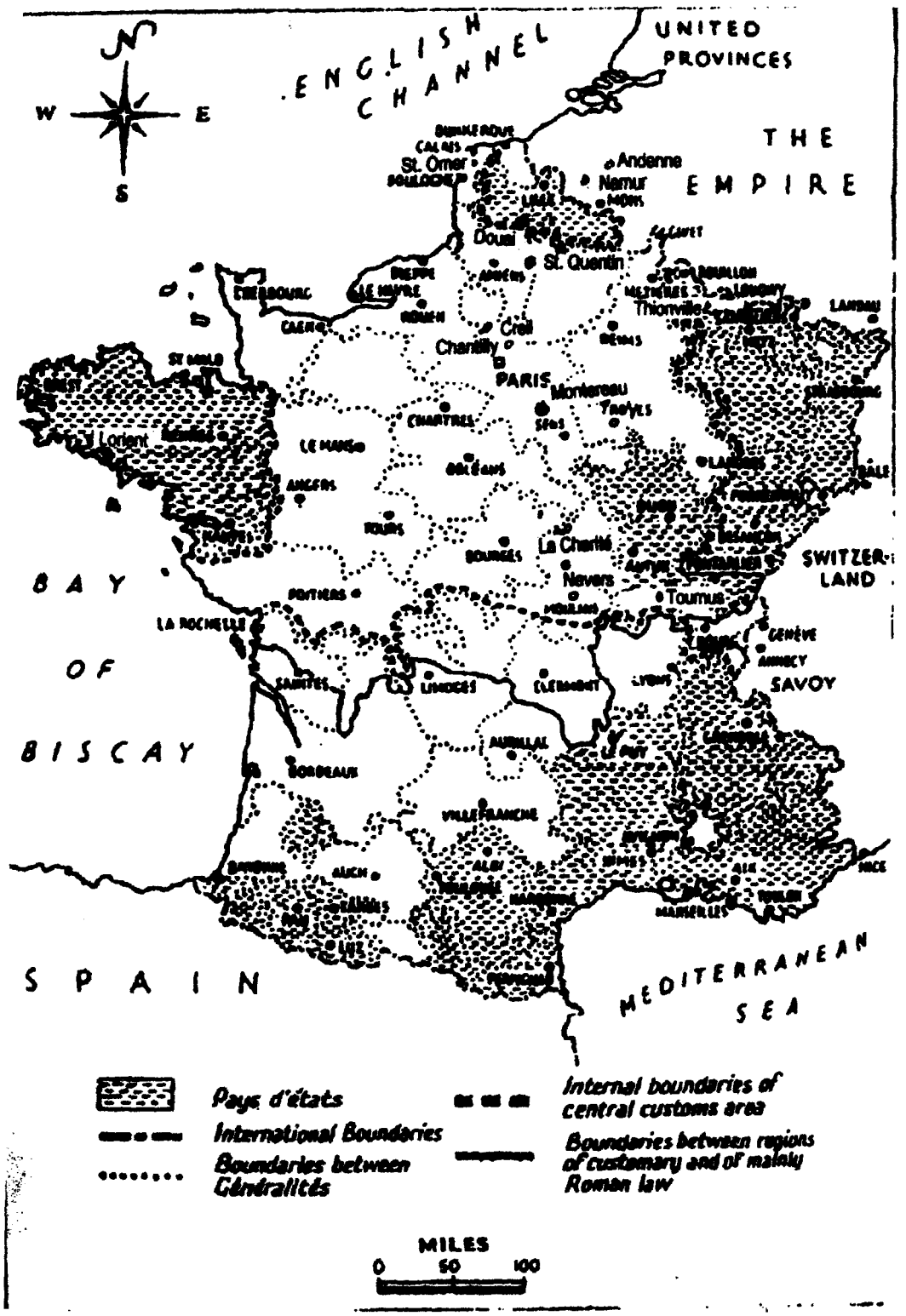
between George Boardman of Trentham and Thomas Barker of Meirheath, journeyman potter, for seven years 'to learn the trade and business of a plate maker'.

[45] Statut des Maîtres Potiers de Terre de la Province d'Alsace entre Bâle et Strasbourg, du 17 janvier 1740, Article 38, E. Gerspach, Documents sur les anciennes faïenceries françaises et la manufacture de Sèvres (Paris, 1891). The apprenticeship was for three years and the fee was 66 livres 16 sols 4 deniers, half within fifteen days of the agreement and the remainder twenty eight months later.

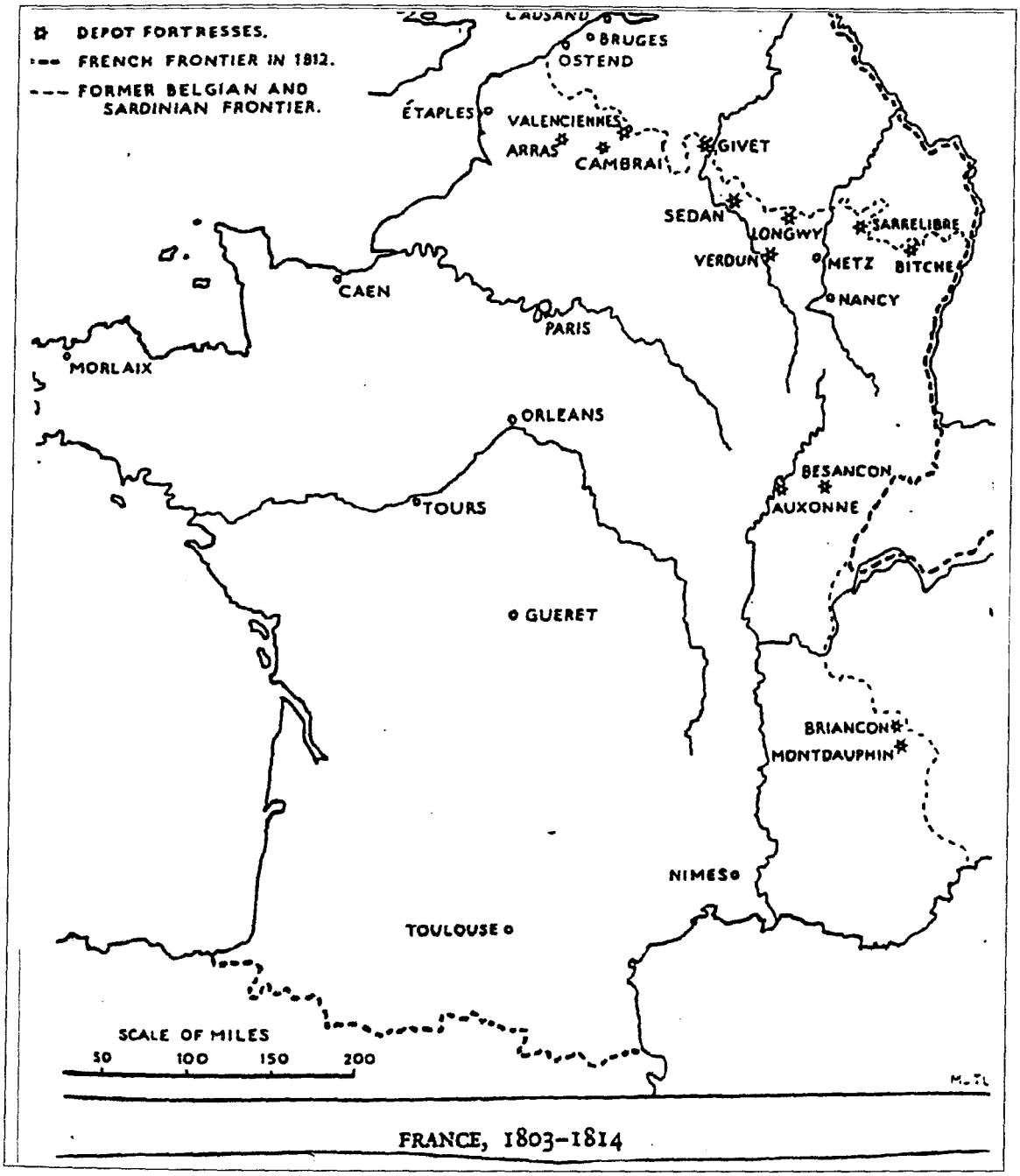
[46] Duhamel Du Monceau, L'Art du Potier de Terre (Paris, 1773), incorporated into the Descriptions des Arts et Métiers par l'Académie royale des Sciences (Paris, 1773).

[47] Calendar of Home Office Papers, George III & IV, 1773-1775, (The Public Record Office), Richard Arthur Roberts (ed.), (London, 1899), Preface, xliii, referring to 'a tour made in 1775 through some of the principal manufacturing towns in England'.

[48] Régine de Plinval de Guillebon, Paris Porcelain 1770-1850 (London, 1972).



France at the end of the Ancien Régime. Towns with English Queensware workers.



Camps and Detention centres after 2 Prairial An 11.

1. - GRAVURE accompagnant la demande de brevet d'invention de Jean Stevenson, déposée le 1er Mai 1806. Cette gravure n'est pas seulement intéressante pour le décor à herborisation, mais aussi pour les formes fabriquées à Creil à cette epoque et leur désignation. Certains noms tels que *sas muik* ou *génieux* sont fort rares.

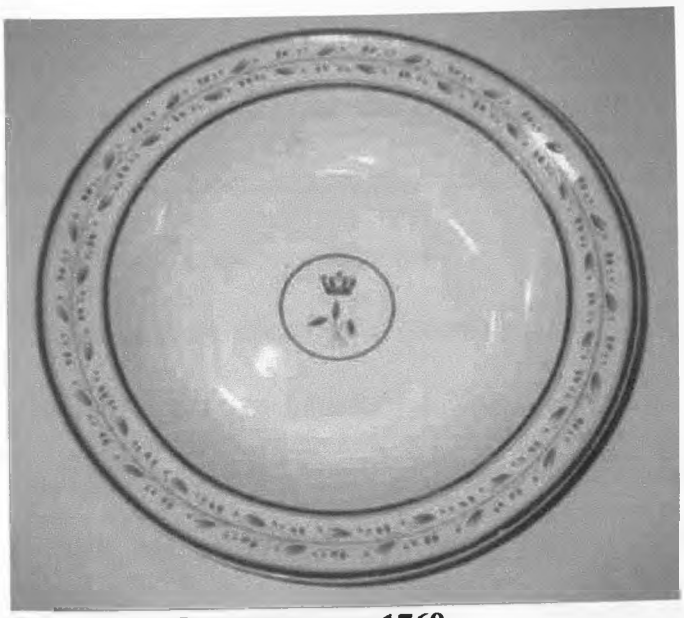
Engraving that accompanied the patent application of Jean Stevenson in May 1806.

English mocha c. 1790.

Montereau mocha c. 1806.

Creil mocha c. 1806.

Creil Queensware plate. Transfer printing by Stone, Coquerel et Le Gros, c. 1808.



Wedgwood Queensware c. 1768.

Acknowledgements.

Special thanks is given to Rodney Hampson, ceramic historian, for his generous scholarship.
The following experts were also consulted.

Maddy Ariès, assistant curator at Sceaux, ceramic historian;

Margaret Audin, historian;

Monsieur Bontillot, curator at Montereau;

Francis Celoria, historian;

Mademoiselle Chapard, curator at Chantilly;

Ellen Cohn, historian, Yale;

Antoine D'Albis, director of research at the Manufacture Nationale de Sèvres;

Peter Francis, ceramic historian;

Sharon Gator, ceramic historian, Wedgwood museum;

Bernard Guineau, ceramic historian;

Reginald Haggar, ceramic historian;

Pat Halfpenny, ceramic historian;

John Harris, historian;

Geneviève Le Duc, ceramic historian, Sèvres;

Monsieur C. Leemans, curator at Creil;

John Lewis, ceramic historian;

Griselda Lewis, ceramic historian;

Claude-Anne Lopez, historian, Yale;

Lynn Miller, ceramic historian, Wedgwood Museum;

Gaye Blake Roberts, curator of the Wedgwood Museum, ceramic historian;

John Smith, ceramic historian.

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